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MINERAL INDUSTRY SURVEYS

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MOTOR GASOLINES, SUMMER 1973

INTRODUCTION

by

The properties of motor fuels sold through service stations in the United

Ella Mae Shelton

American Petroleum Institute and the Bureau of Mines in the United States

Department of the Bartlesville Energy Research Center, Bureau of Mines

Identification of U.S. Department of the Interior, Bartlesville, Okla.

This report presents analytical data for 4,737 samples that comprised the

June, July, and August 1973 survey of the gasoline coverage

by this survey includes data from more than 1,000 different locations

of various refiners, motor manufacturers, and chemical companies obtained and

submitted the data to the Bureau of Mines for analysis and compilation. Motor-

gasoline reports published during the past 10 years are listed on page 5.

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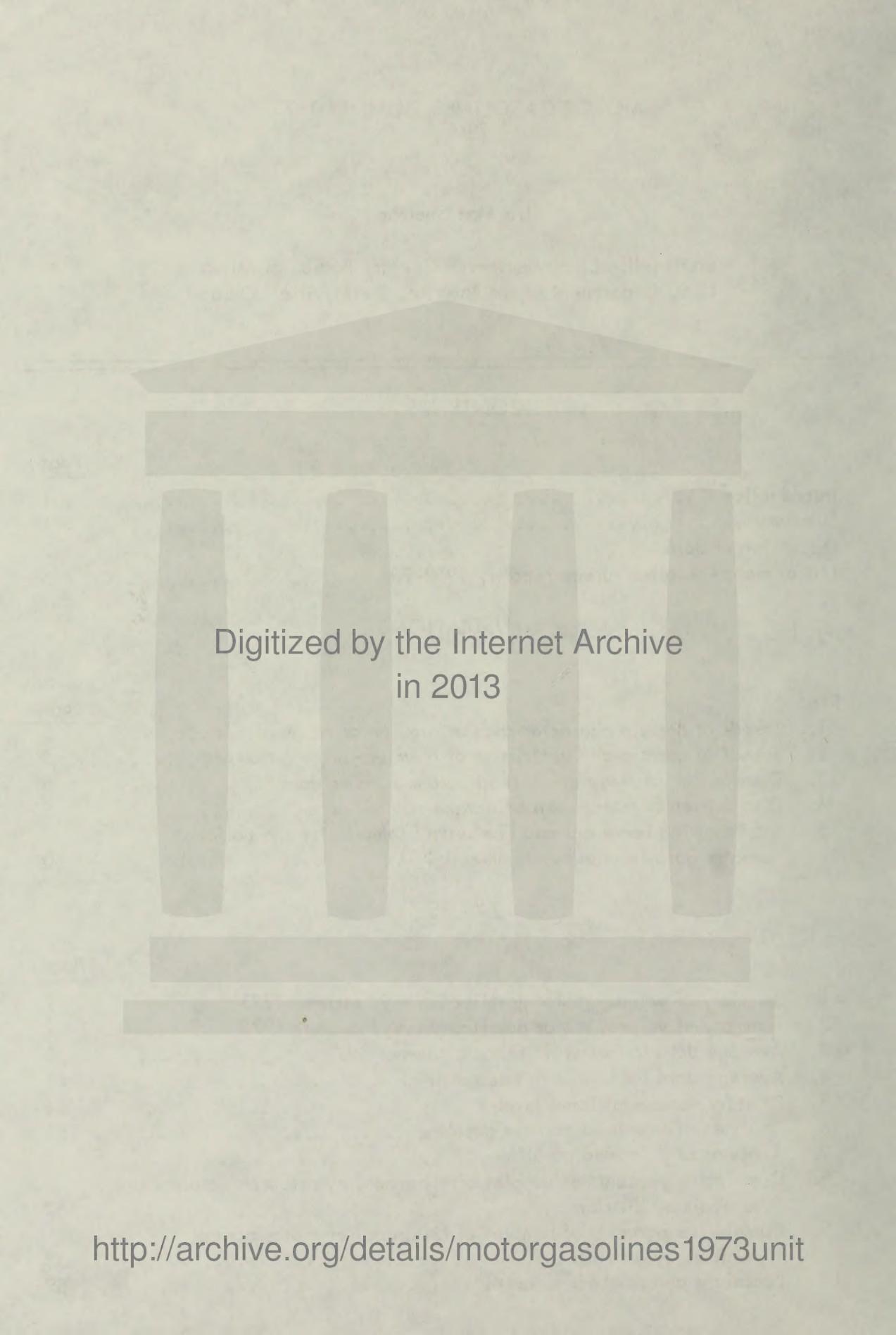
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INTRODUCTION

The properties of motor fuels sold through service stations in the United States are reported in accordance with a cooperative agreement between the American Petroleum Institute and the Bureau of Mines in the United States Department of the Interior. By agreement with the American Petroleum Institute, identification of the data is confidential.

This report presents analytical data for 4,717 samples that represent the products of 49 companies. Company representatives collected the samples during June, July, and August 1973. As in previous surveys, the gasolines covered by this survey include those from both large and small suppliers. Laboratories of various refiners, motor manufacturers, and chemical companies obtained and submitted the data to the Bureau of Mines for analysis and compilation. Motor-gasoline survey reports published during the past 10 years are listed on page 5.

Analytical tests required for a complete gasoline analysis were not available for many of the samples. Tests in this category, the number of test results available and used in this report, and the percent of the total samples represented for that test include the following:

Test	Number of samples used	Percent of total samples
Gravity	3,854	82
Sulfur content	1,277	27
Phosphorus content	558	12
Lead content	3,705	79
Distillation	2,768	59
Vapor pressure	2,758	59

SUMMARY

The characteristics of motor gasolines for summer 1973 are summarized in table 1, and those for summer 1972 are shown in table 2 for comparison. Figures 1 and 2 show trends for several years of some of the more important characteristics. The following data list trends of national average octane numbers for the last four gasoline surveys:

	Regular-price			Premium-price		
	Octane number			Octane number		
	Research	Motor	(R+M)/2	Research	Motor	(R+M)/2
Winter 1971-72	94.0	86.5	90.3	99.8	92.3	96.1
Summer 1972	94.1	86.4	90.3	99.8	92.2	96.0
Winter 1972-73	93.9	86.4	90.2	99.6	92.2	95.9
Summer 1973	93.5	86.1	89.8	99.3	91.9	95.6

Table 3 shows regional average octane numbers of regular- and premium-price fuels including the sum of the research and motor octane numbers divided by two. Table 4 shows average data from each district and gives the national average for all properties.

Data for third grade (sub-regular), intermediate grade, and super-premium gasolines are included in table 5.

Table 6 lists all of the low-lead samples (0.08-0.50 g/gal) within each district and table 7 gives the unleaded gasolines (0.00-0.07 g/gal).

DISCUSSION OF DATA

Terms used in the surveys have the following meanings:

District: The designation of a marketing area for collecting samples and data. The present arrangement of 17 districts, developed by the CFR Committee¹, was selected with reference to the specifications on motor gasolines, refinery locations, population centers, and arteries of commerce such as navigable rivers. The states or parts of states in each district are indicated in the headings of table 3 and are shown in figure 5.

Brand: The gasoline sold within a given price group and by a given trade name.

Item: The index number assigned to a given brand in a given district. The data for each item represent the average of those submitted for that brand in that district. The number of samples represented follows the item number.

Sample: The supply of gasoline obtained at the service station and analyzed in the laboratory.

¹/ Coordinating Fuel and Equipment Research Committee (formerly the Coordinating Fuel Research Committee) of the Coordinating Research Council, Inc. From 1935 to 1948 the motor-gasoline surveys were conducted under a cooperative agreement between the Coordinating Research Council and the Bureau of Mines.

Table 3 presents the following data by districts: gravity in degrees API, sulfur, gum, phosphorus, lead, research- and motor-method octane numbers, the calculated property of the sum of research and motor octane numbers divided by two, Reid vapor pressure, and distillation characteristics of the motor fuels collected. The tests were made according to American Society for Testing and Materials standards.^{2/} This current report presents, for the first time, calculated temperature values for a vapor-liquid ratio of 20. Computer calculations of V/L 20 data were made, using vapor pressure and distillation data for each sample, in the equation described by D439^{3/} Appendix A 2, "Procedure for Estimating Temperature-V/L Values."

Corrosion test results are not included in the district tables as all the reported numbers are "1," according to the corrosion scale given in table 1 of ASTM D130.^{2/}

Gum test data are reported to the nearest whole number. The distillation temperatures, corrected to barometric pressure at 760 mm Hg, are those for percent evaporated.

Average values follow the tabulated data in table 3 for the respective grades of fuel shown in each district. The averages of the various properties were computed without reference to the total number of samples represented by each item.

The district averages from table 3 are shown in table 4 with the number of brands and number of samples for regular- and premium-price gasoline in each district. The national averages for each of the properties of fuels sold in each of the 17 districts are given at the end of the table.

Table 5 shows data for third grade (sub-regular), intermediate grade, and super-premium motor gasolines. Tables 6 and 7 present special listings of the samples according to lead content. Table 6 lists the low-lead samples (0.08-0.50 g/gal) and table 7 lists the unleaded samples (0.00-0.07 g/gal).

- ^{2/} American Society for Testing and Materials, 1972 Annual Book of ASTM Standards, Part 17, Petroleum Products — Fuels; Solvents; Burner Fuel Oils; Lubricating Oils; Cutting Oils; Lubricating Greases; Hydraulic Fluids, Philadelphia, Pa., 1,236 pp.
- ^{3/} American Society for Testing and Materials, Standard Specifications for Gasoline (D439):1972 Annual Book of ASTM Standards, Part 17 (see footnote 2), pp. 169-180.

Figures 1 and 2 illustrate trends in the national averages of certain properties of regular- and premium-price gasolines, respectively, since the summer of 1946. Averages for the winter surveys are plotted on the lines that represent the years and for the summer surveys between the lines. Octane-number points are connected for successive surveys, but those for Reid vapor pressure and distillation temperatures are plotted separately for summer and winter surveys. Charts that show plots of these properties from 1935 (except winter 1941-42 and summer 1942) are presented in the survey report on motor gasolines for winter 1964-65 and preceding reports.⁴

Figures 3 and 4 illustrate distribution (frequency) of octane values by numbers of samples for all grades of fuel represented. Each bar represents one-half octane number.

Tables 8 and 9 show the percentages of all samples for each district at each whole octane number level, cumulated according to increasing octane number.

The districts, locations, and number of samples of gasoline represented are listed in table 10 and shown on the map in figure 5. The locations are named for the principal cities in the respective vicinities, and include suburbs and adjacent communities. The area of the circle at each location is proportional to the number of samples obtained. The summary at the end of table 10 lists by district, the number of locations, samples, and the percentages of the latter based on the total reported.

This report does not discuss the significance of the data presented. Reference may be made to the ASTM specification³ for motor gasoline and its appendixes, "Significance of ASTM Specifications for Motor Gasoline," at a technical library.

^{4/} Blade, O. C., Motor Gasolines, Winter 1964-65. Bureau of Mines Petroleum Products Survey No. 40, 38 pp. (in cooperation with the American Petroleum Institute).

LIST OF MOTOR-GASOLINE SURVEY REPORTS, 1963-73

<u>Author</u>	<u>Season and Year</u>	<u>PPS Report No.</u>	<u>Published</u>	<u>No. of Pages</u>
In cooperation with the American Petroleum Institute				
Blade, O. C.	Summer 1964	37	Dec. 1964	40
Do.	Winter 1964-65	40	July 1965	38
Do.	Summer 1965	43	Jan. 1966	39
Do.	Winter 1965-66	45	June 1966	38
Do.	Summer 1966	48	Dec. 1966	38
Do.	Winter 1966-67	50	June 1967	38
Do.	Summer 1967	53	Dec. 1967	38
Do.	Winter 1967-68	55	June 1968	39
Do.	Summer 1968	58	Jan. 1969	38
Do.	Winter 1968-69	60	July 1969	38
Blade, O. C. and Ella Mae Shelton	Summer 1969	63	Jan. 1970	38
Shelton, Ella Mae and C. M. McKinney	Winter 1969-70	66	Aug. 1970	47
Do.	Summer 1970	68	Jan. 1971	49
Do.	Winter 1970-71	70	June 1971	54
Shelton, Ella Mae	Summer 1971	73	Jan. 1972	59
Do.	Winter 1971-72	75	June 1972	53
Do.	Summer 1972	78	Jan. 1973	53
Do.	Winter 1972-73	80	June 1973	60
	Summer 1973	This report		

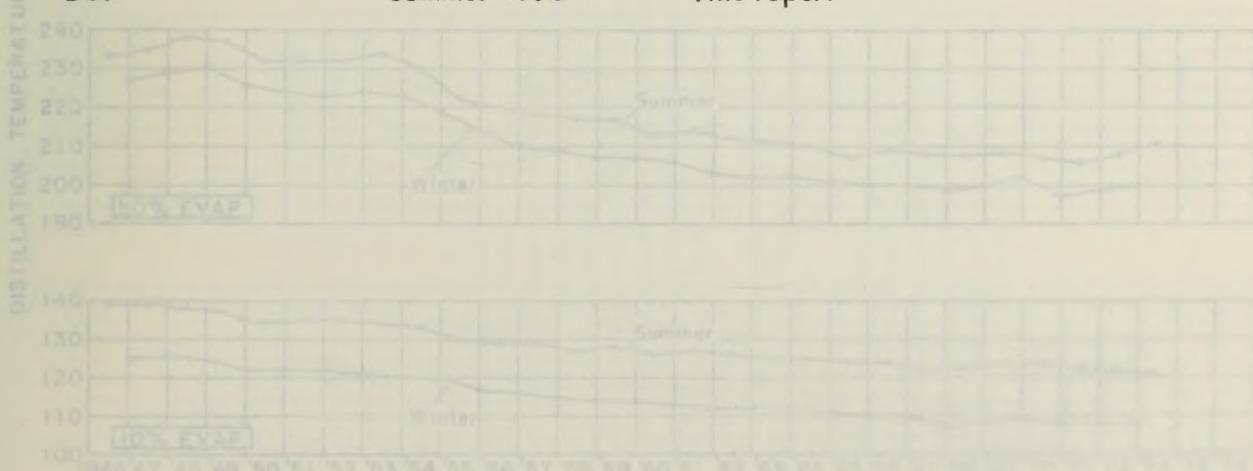


FIGURE I.—Trends of Certain Characteristics of Regular-Priced Gasolines

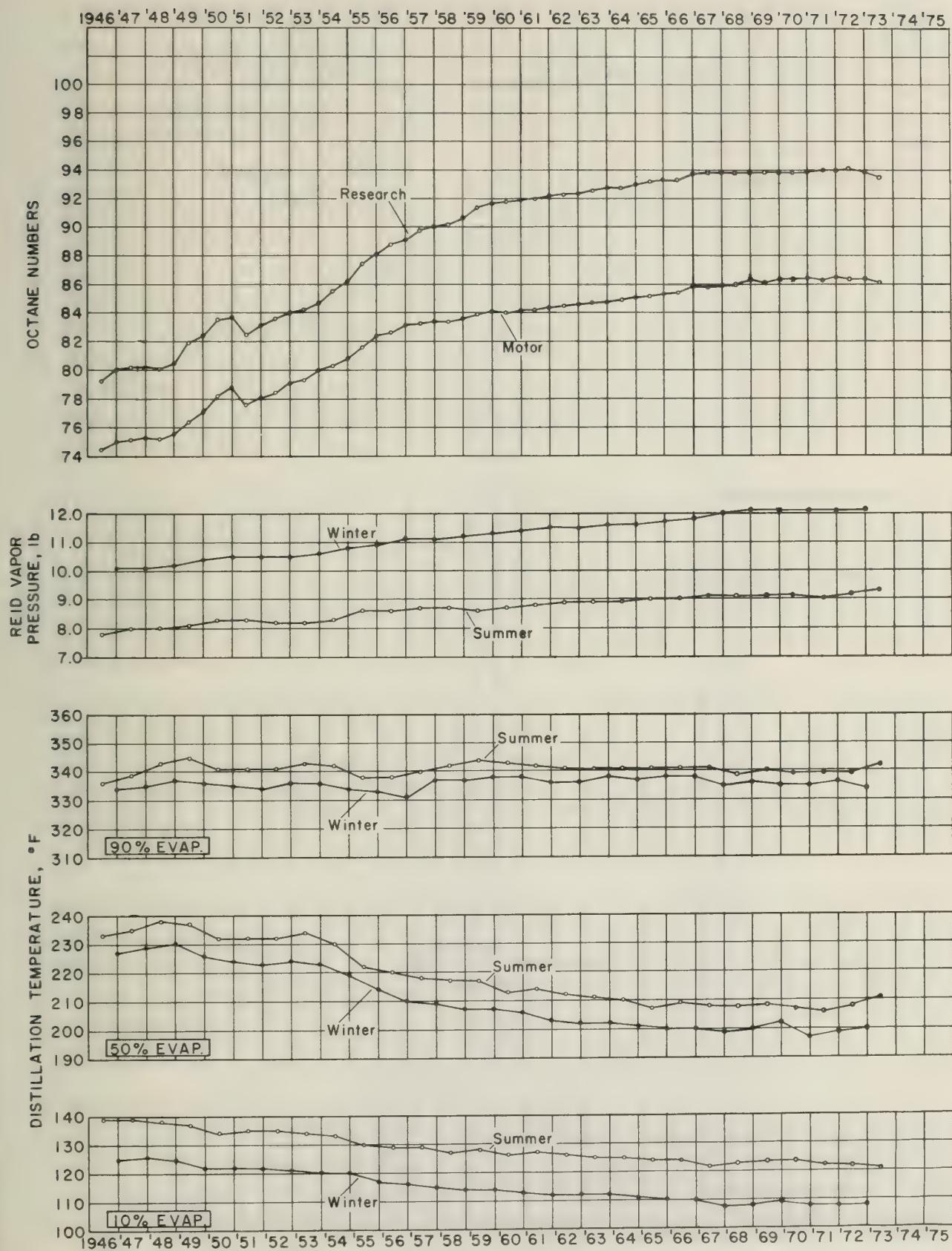


FIGURE 1.—Trends of Certain Characteristics of Regular-Price Gasolines.

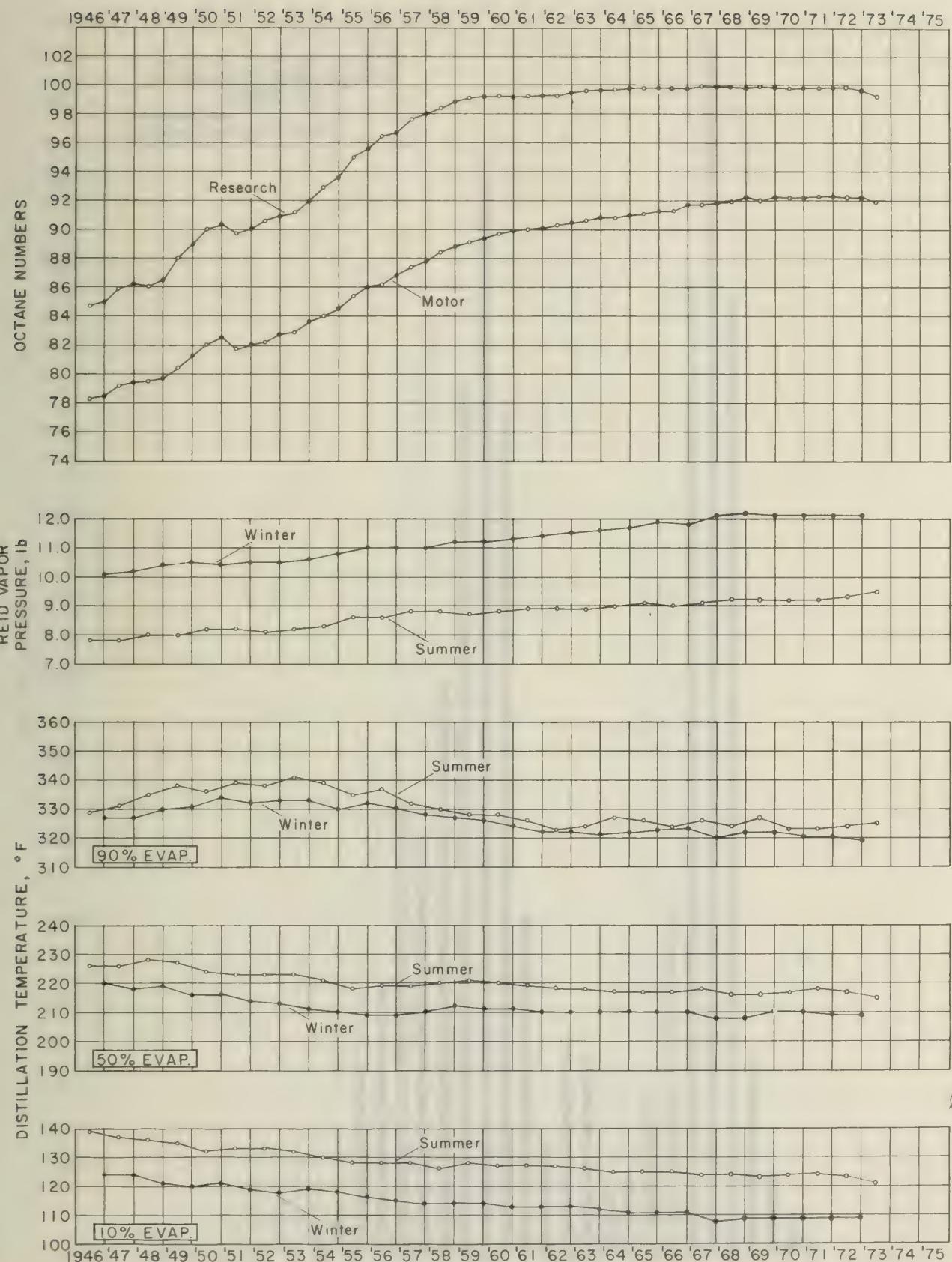


FIGURE 2.—Trends of Certain Characteristics of Premium-Price Gasolines.

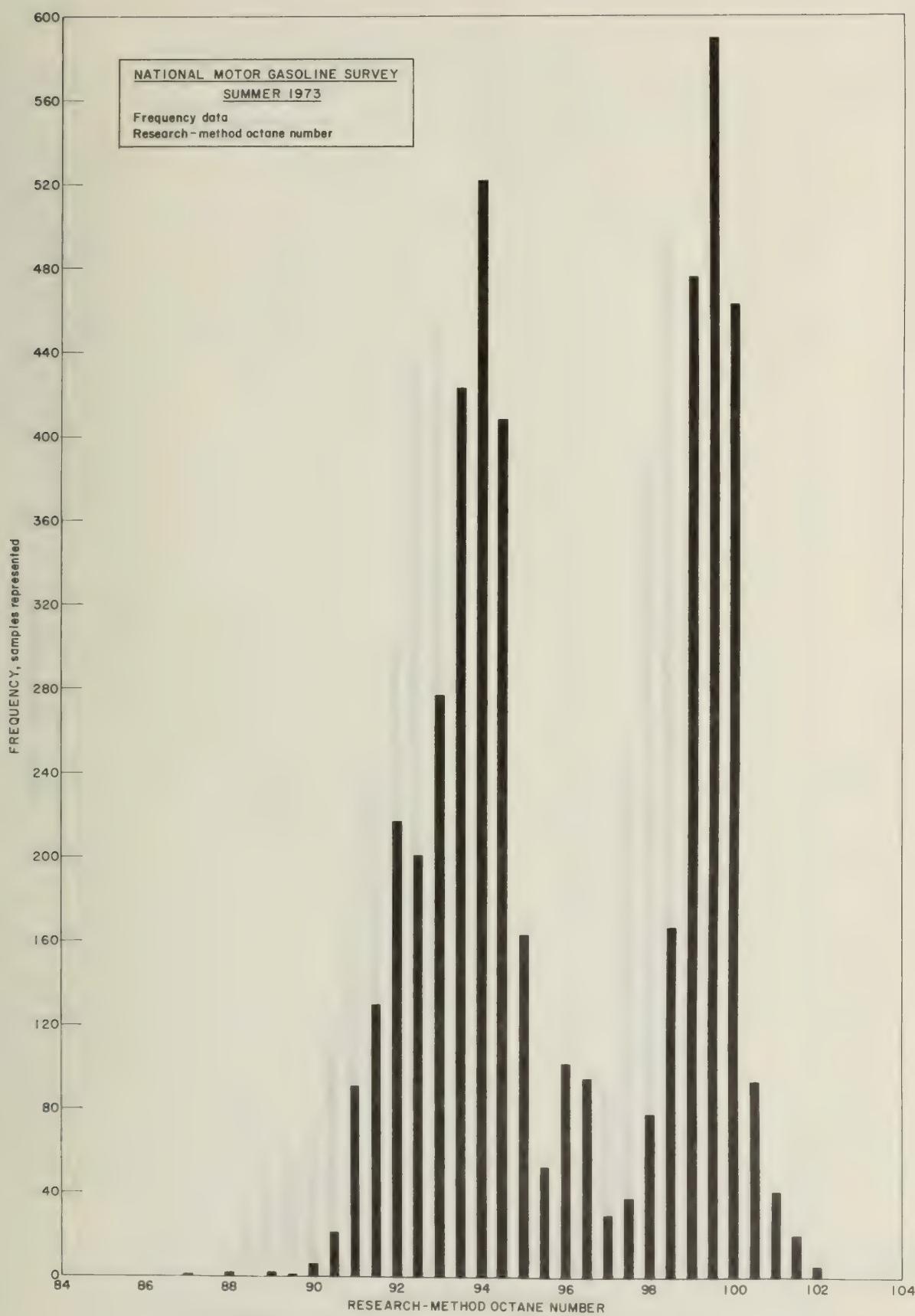


FIGURE 3.-Distribution of Research-Method Octane Numbers.

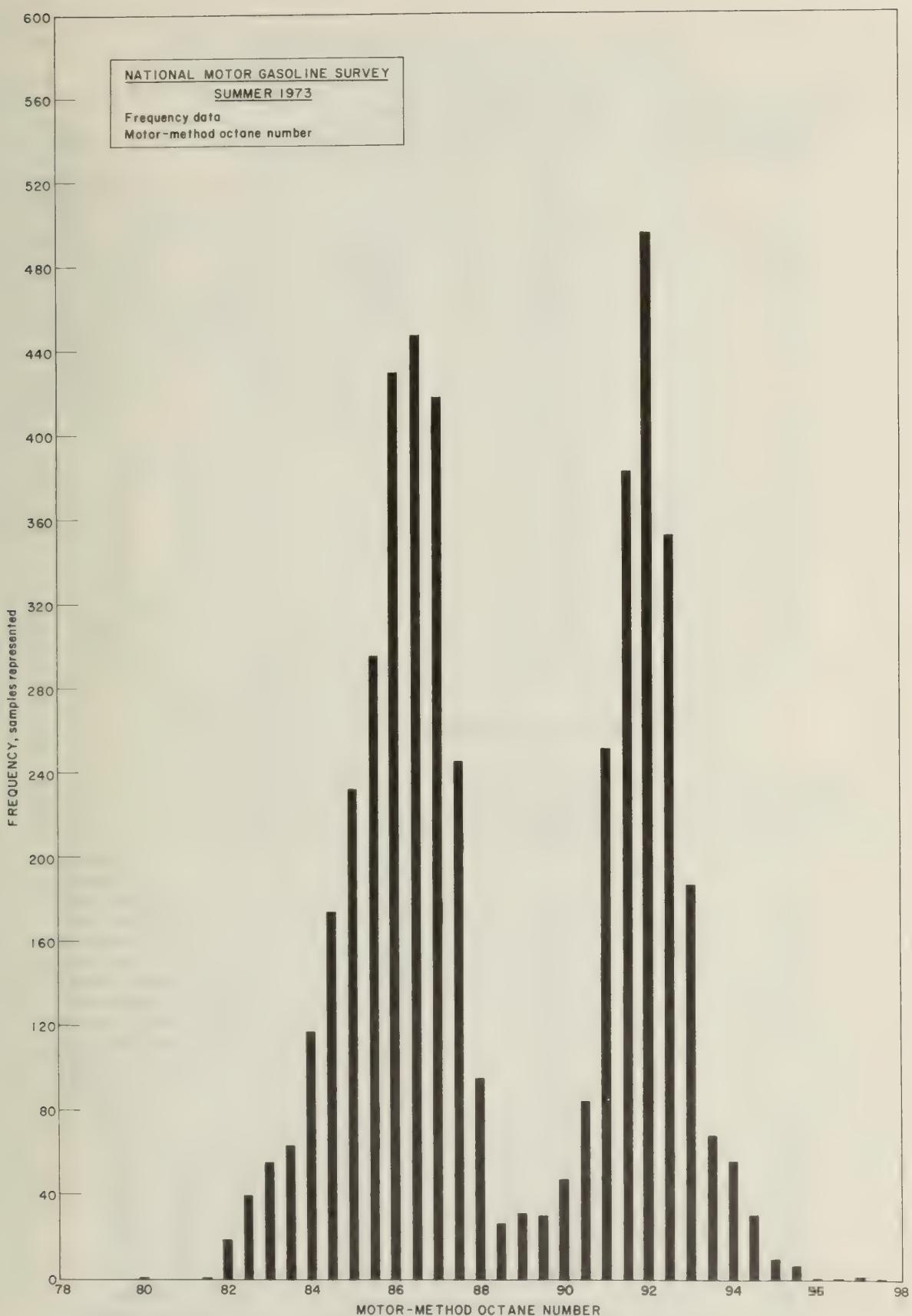


FIGURE 4.-Distribution of Motor-Method Octane Numbers.

TABLE 1. - Summary of values, motor gasoline survey, summer 1973

Test	ASTM method	Regular-price gasoline	Premium-price gasoline
		Average	Average
Gravity, ° API	D287	60.3	61.7
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.040	0.026
Gum, mg/100 ml	D381	1	1
Phosphorus, g/gal	D3231	0.004	0.003
Lead, g/gal	D526	2.01	2.42
Octane number, Research	D2699	93.5	99.3
Octane number, Motor	D2700	86.1	91.9
Research + motor octane Nos./2		89.8	95.6
Reid vapor pressure, lb	D323	9.3	9.5
Vapor-liquid ratio of 20, °F	D439	136	137
Distillation	D86		
Temp, °F			
IBP		91	90
5% evaporated		108	107
10% Do.		121	121
20% Do.		142	146
30% Do.		163	171
50% Do.		211	215
70% Do.		265	255
90% Do.		342	325
95% Do.		378	361
End point		417	405
Residue, vol %		1.0	1.0
Loss, vol %		1.6	1.7

TABLE 2. - Summary of values, motor gasoline survey, summer 1972

Test	ASTM method	Regular-price gasoline	Premium-price gasoline
		Average	Average
Gravity, ° API	D287	60.5	60.7
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.042	0.026
Gum, mg/100 ml	D381	1	1
Phosphorus, g/gal	D3231	-	-
Lead, g/gal	D526	2.04	2.52
Octane number, Research	D2699	94.1	99.8
Octane number, Motor	D2700	86.4	92.2
Research + motor octane Nos./2		90.3	96.0
Reid vapor pressure, lb	D323	9.2	9.3
Vapor-liquid ratio of 20, °F	D439	-	-
Distillation	D86		
Temp, °F			
IBP		92	91
5% evaporated		108	108
10% Do.		122	123
20% Do.		142	147
30% Do.		163	172
50% Do.		208	217
70% Do.		262	257
90% Do.		339	324
95% Do.		372	357
End point		411	401
Residue, vol %		0.9	0.9
Loss, vol %		1.5	1.6

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS

DIST. 1 NORTHEAST
MAINE, MASS., N.H., Vt., AND NORTHERN N.Y.

ITEM	SAMPLES	GR. ^a	SULF, ASTM D287	PHOS. ASTM D381	GUM, ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D323 LB	20V/L IBP	DISTILLATION, ASTM D86													
										TEMPERATURE, F (CORRECTED TO 760 MM HG)			RES LOSS										
										5	10	20	30	50	70	90	95	EP	X	X	X		
1	7	62.3	-	-	-	2.99	94.1	87.6	90.9	11.2	124	83	95	106	127	152	203	270	355	391	424	1.3	2.1
2	4	61.9	0.040	0	-	2.09	93.9	86.8	90.4	9.9	133	90	99	118	139	160	211	269	344	341	411	1.3	1.9
3	3	61.5	-	-	-	1.92	95.6	86.0	90.8	9.8	129	88	100	112	130	150	197	265	345	384	404	0.7	1.8
4	4	62.1	-	-	-	2.56	94.1	87.0	90.6	8.6	133	90	103	111	127	143	187	250	329	375	408	0.8	1.7
5	7	57.7	-	-	-	1.17	93.6	85.9	89.8	9.9	136	89	103	117	143	172	235	295	361	392	424	1.2	2.0
6	1	62.6	-	-	-	-	93.3	87.4	90.3	10.2	130	89	111	123	140	156	198	248	308	333	379	2.2	2.2
7	7	60.3	-	-	-	1.97	94.2	87.6	90.9	10.0	134	90	102	117	141	164	222	281	357	392	416	1.3	2.1
8	4	58.6	-	-	-	2.29	94.4	87.2	90.8	9.5	138	88	105	117	143	172	236	289	356	382	416	1.4	2.3
9	3	60.1	-	-	-	2.12	95.3	86.5	90.9	10.0	132	86	101	115	141	162	207	259	325	377	402	0.7	1.8
10	3	59.3	-	-	-	1.70	94.1	87.0	90.6	9.7	131	86	101	112	128	148	209	275	352	379	428	.8	2.2
11	3	61.9	-	-	-	2.87	94.4	87.3	90.9	9.0	133	90	106	119	138	152	187	238	309	337	386	1.1	1.4
12	7	60.4	-	-	-	2.64	93.5	87.5	90.5	10.1	132	89	103	116	140	163	216	270	339	383	420	1.1	2.2
AVERAGE	SAMPLES	60.7	.040	0	-	2.21	94.2	87.0	90.6	9.8	132	86	102	115	136	158	209	267	340	372	410	1.0	2.0

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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 1 NORTHEAST--CONTINUED
 MAINE, MASS., N.H., V.T., AND NORTHERN N.Y.
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAMPLE	GR. ASTM D287 API	SULF. ASTM D1266 WT X	GUM, ASTM D381 MG	PHOS. ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, MOT, R+M	RVP, 20°/L D323 LB	DISTILLATION, ASTM D86														
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED											
									IBP	5	10	20	30	50									
13	7	61.1	-	-	-	2.88	99.7	92.2	96.0	10.6	133	92	105	121	148	176	224	265	322	352	392	1.1	2.2
14	3	59.9	-	-	-	2.68	100.0	91.8	95.9	9.6	135	88	98	115	140	166	217	262	325	360	416	1.5	1.5
15	7	59.4	-	-	-	2.59	99.9	92.2	96.1	10.4	134	91	104	117	142	170	228	268	329	359	400	1.1	1.9
16	3	59.3	-	-	-	2.96	100.0	91.2	95.6	9.6	134	88	97	114	138	164	213	259	314	362	400	1.6	1.4
17	4	57.9	-	-	-	2.69	99.9	92.2	96.1	9.4	135	89	100	112	134	154	221	267	342	368	400	0.9	1.9
18	1	65.3	-	-	-	-	99.6	92.5	96.1	11.4	126	92	103	115	137	161	205	240	309	339	381	.8	2.9
19	7	62.2	-	-	-	2.66	99.8	92.8	96.3	11.2	124	86	97	107	125	147	203	255	323	356	392	1.2	2.0
20	7	60.2	-	-	-	2.15	99.4	91.2	95.3	10.4	131	88	102	116	139	165	219	260	324	366	408	1.2	2.2
21	4	61.4	0.030	0	-	2.37	99.4	91.6	95.5	10.1	134	90	101	121	146	172	216	255	329	353	409	1.0	2.5
22	3	60.7	-	-	-	2.56	99.5	91.7	95.6	9.0	138	88	98	113	145	175	218	267	343	402	426	1.4	1.0
23	6	60.7	-	-	-	2.40	100.3	91.5	95.9	10.4	132	90	101	114	138	163	218	266	330	357	395	1.1	2.2
24	3	50.7	-	-	-	0.05	100.8	90.6	95.7	10.4	134	88	97	111	138	161	216	276	339	391	412	1.8	1.2
25	3	60.6	-	-	-	2.65	99.3	91.3	95.3	9.4	135	86	102	114	140	164	213	256	321	357	392	.9	1.6
AVERAGE SAMPLES	60.0	.030	0	-	-	2.39	99.8	91.8	95.8	10.1	133	89	100	115	139	166	219	261	327	363	402	1.2	1.9

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAM- PLES	GR. ^a	SULF, ASTM D287	PHOS. ASTM D381	LEAD, ASTM D526	GUM, ASTM D381	RES, ASTM D231	OCTANE NUMBER	RVP, ASTM D323	20V/L TEMPERATURE, F (CORRECTED TO 760 MM HG)	DISTILLATION, ASTM D86												
											PERCENT EVAPORATED			RES LOSS									
											IBP	5	10	20	30								
26	12	61.4	0.061	2	0.006	2.44	94.9	86.2	90.6	9.6	132	93	108	119	137	155	197	258	341	380	418	1.0	1.4
27	1	60.2	0.031	0	0.012	2.06	93.3	85.7	89.5	10.2	131	91	111	120	136	154	206	274	363	400	426	1.5	1.5
28	14	60.1	0.030	1	0.001	1.95	94.3	87.0	90.7	10.2	130	93	107	118	137	155	202	259	335	375	422	1.1	1.1
29	15	59.5	0.032	0	0.005	2.05	94.2	86.5	90.4	9.5	130	90	106	119	140	163	214	270	346	381	424	1.0	1.9
30	9	59.6	0.033	-	-	2.13	93.9	86.4	90.2	9.6	135	90	104	118	141	167	219	272	345	380	425	1.1	1.4
31	20	60.8	0.044	1	0.001	2.75	94.5	87.1	90.8	10.4	130	90	103	116	137	160	210	271	355	391	423	1.1	2.0
32	21	58.7	0.026	1	0.004	1.35	93.7	86.1	89.9	9.5	138	92	106	121	146	171	228	289	355	390	424	1.2	1.9
33	7	61.1	0.034	-	-	2.02	94.5	87.2	90.9	9.6	131	91	105	116	134	153	204	264	336	371	412	0.8	1.6
34	15	58.7	0.029	0	0.005	2.55	94.2	87.2	90.7	9.2	139	93	109	123	145	169	224	284	354	384	414	1.1	1.7
35	21	61.2	0.049	1	0.005	2.13	93.6	86.5	90.1	9.9	132	93	106	119	139	159	207	268	342	387	423	1.1	1.9
36	8	60.0	0.075	0	0.014	2.20	94.5	86.6	90.6	9.6	135	87	106	118	142	165	213	269	348	385	419	1.1	1.8
37	18	60.0	0.029	2	0.009	1.91	94.4	87.2	90.8	9.5	135	93	106	118	138	159	214	278	356	392	427	1.1	1.4
38	25	60.2	0.024	1	0.009	2.27	94.3	86.8	90.6	9.5	137	93	108	124	147	170	218	271	345	379	418	1.0	1.9
39	3	59.9	0.050	-	-	2.12	93.9	86.6	90.3	9.1	136	89	105	116	139	160	208	267	346	389	424	0.8	1.7
40	8	61.8	0.024	0	0.008	2.80	94.6	87.7	91.2	9.7	131	92	107	118	135	151	192	248	324	350	386	1.0	1.3
41	3	59.2	0.030	-	-	1.94	93.5	86.4	90.0	9.7	135	91	107	119	143	166	219	277	354	395	426	1.0	1.5
42	9	59.8	0.030	-	-	2.07	94.0	86.6	90.1	9.3	136	91	108	121	143	163	214	272	353	396	428	1.1	1.1
AVERAGE	SAMPLES	60.1	0.037	1	0.007	2.16	94.1	86.7	90.4	9.7	134	91	107	119	140	161	211	270	347	384	420	1.1	1.6

SAMPLES 209

TABLE 3. "MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 2 MID-ATLANTIC COAST--CONTINUED
R.I., CONN., N.J., DEL., MD., VA., CENTRAL AND SOUTHERN N.Y., AND EASTERN PA.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR. ^a	SULF. ^b	GUM, ASTM D287	PHOS. ASTM D381	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D323	20V/L ASTM D439	DISTILLATION, ASTM D86						RES. LOSS %							
										TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED										
										IBP	5	10	20	30	50	70	95	EP					
43	9	60.5	0.022	-	-	2.46	99.4	92.1	95.8	9.8	13.6	90	103	118	146	173	219	260	327	363	415	0.9	1.6
44	3	60.4	0.032	-	-	2.43	99.2	91.8	95.5	8.5	14.3	90	108	123	149	178	224	264	336	384	420	1.8	1.2
45	8	57.3	.027	0	0.012	3.00	99.9	91.8	95.9	10.0	13.3	89	106	118	139	162	214	261	318	346	381	.9	1.5
46	2	60.9	-	-	-	2.46	99.1	92.1	95.6	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	11	58.4	0.030	0	.083	2.87	100.6	91.4	96.0	9.5	13.7	91	105	119	142	169	226	274	336	361	399	1.0	1.9
48	22	60.0	0.016	1	.004	2.65	100.1	92.2	96.2	9.7	13.6	92	107	122	145	170	220	262	328	366	411	1.1	1.6
49	15	60.6	0.022	2	.014	2.55	99.6	92.1	95.9	9.3	13.8	89	106	119	144	171	223	266	331	369	414	1.0	1.6
50	8	60.0	0.044	0	.006	2.65	99.1	91.3	95.2	10.4	13.3	87	104	119	146	173	220	265	332	369	407	1.1	2.1
51	21	59.8	0.022	1	.007	2.44	99.1	92.0	95.6	10.2	13.3	89	104	118	142	166	219	265	325	362	404	1.0	1.8
52	15	57.9	.016	1	.004	2.82	99.8	92.1	96.0	9.1	13.8	94	108	121	142	167	222	269	330	363	397	1.1	1.6
53	7	60.9	0.023	-	-	2.52	99.3	91.3	95.3	10.4	13.1	90	104	115	134	157	214	260	328	361	410	.9	1.6
54	21	61.1	.027	1	.005	2.23	99.4	91.4	95.4	10.1	13.3	91	104	117	140	166	217	258	320	361	408	1.1	1.8
55	21	60.2	.019	0	.001	2.86	100.1	91.8	96.0	10.5	13.0	90	102	116	137	159	208	258	328	366	411	1.2	2.0
56	8	60.5	0.024	-	-	2.47	99.4	91.6	95.5	9.8	13.5	90	105	119	146	174	219	259	330	365	411	1.0	1.7
57	15	60.4	0.026	0	.025	2.55	99.7	91.9	95.8	9.8	13.6	89	107	122	147	173	219	260	333	368	414	.9	1.8
58	15	60.1	.018	0	.005	2.28	99.2	92.4	95.8	10.4	12.9	90	103	114	132	152	206	272	340	376	423	1.0	1.9
59	13	52.5	.012	1	.006	.02	100.9	90.3	95.6	9.9	13.7	88	104	116	144	181	238	270	332	362	408	.9	1.9
AVERAGE	SAMPLES	59.5	.024	1	.014	2.43	99.6	91.7	95.7	9.8	13.5	90	105	119	142	168	219	264	330	365	408	1.1	1.7

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 3 SOUTHEAST
 N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE

ITEM	GR. SAM- PLES	SULF, ASTM D287	GUM, ASTM D381	PHOS. ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER R+M ASTM D2700	RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86						RES %	LOSS %							
									TEMPERATURE, F CORRECTED TO 760 MM HG)														
									IBP	5	10	20	30	50	70	90	95						
60	6	59.3	0.032	-	-	1.66	94.2	86.1	90.2	9.4	138	91	108	121	146	171	222	277	350	388	420	0.9	1.4
61	6	61.1	0.027	-	-	2.42	94.0	87.0	90.5	9.4	136	92	108	121	141	162	212	277	352	386	424	1.2	1.6
62	6	59.9	0.053	-	-	2.39	94.1	86.0	90.1	9.3	136	93	109	121	142	162	212	275	356	401	424	0.9	1.7
63	9	59.7	0.039	-	-	2.02	94.3	86.7	90.5	9.4	137	91	107	120	143	167	219	276	352	391	415	0.8	1.7
64	28	60.6	0.034	-	-	2.64	94.2	87.2	90.7	9.4	136	93	109	124	147	171	218	269	340	376	416	1.1	1.7
65	3	59.5	0.049	-	-	2.04	94.2	87.1	90.7	8.3	143	98	112	124	144	173	220	284	352	384	428	1.3	7
66	1	58.6	-	-	-	2.62	93.6	87.8	90.7	9.0	139	95	-	120	140	-	228	"	362	-	432	1.0	2.0
67	17	59.5	0.023	-	-	2.48	93.5	87.2	90.4	9.5	138	92	109	124	149	173	225	288	357	386	425	1.0	1.5
68	4	60.6	-	-	-	2.27	94.2	86.9	90.6	9.3	135	88	104	117	139	159	208	261	348	374	416	1.0	1.5
69	6	60.4	0.039	-	-	2.53	94.5	86.5	90.5	9.4	135	90	106	118	137	157	208	271	350	389	424	0.9	1.4
70	24	59.3	0.037	-	-	2.36	94.3	87.1	90.7	9.1	139	92	109	123	146	170	218	281	358	389	418	1.1	1.5
71	13	62.5	0.026	-	-	2.54	94.2	88.4	91.3	9.3	135	93	111	122	140	157	201	265	332	354	390	0.9	1.3
72	24	60.4	0.053	-	-	2.28	93.6	86.6	90.1	9.6	136	92	107	122	144	167	218	277	350	381	419	1.1	1.7
73	15	60.1	0.035	-	-	2.78	94.3	87.3	90.8	9.7	134	91	105	118	138	161	212	279	359	392	422	1.3	1.7
74	9	59.3	0.043	0	-	1.91	94.0	86.4	90.2	9.5	134	90	107	119	138	161	214	269	346	377	417	1.0	1.6
75	2	61.8	0.026	-	-	2.46	94.0	87.3	90.7	9.2	131	90	106	117	132	147	188	245	321	362	418	1.0	1.5
76	3	59.8	-	-	-	2.06	94.2	86.8	90.5	8.9	137	91	108	119	138	156	207	272	353	396	426	0.9	1.1
77	24	60.7	0.045	-	-	2.48	94.5	86.2	90.4	9.5	135	93	109	123	143	164	209	270	353	387	425	1.1	1.5
AVERAGE SAMPLES	60.2	0.037	0	-	-	2.33	94.1	86.9	90.5	9.3	136	92	108	121	142	163	213	273	350	383	420	1.0	1.5

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 3 SOUTHEAST--CONTINUED
N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	GUM, ASTM D3231	PHOS., ASTM D381	LEAD, ASTM D526	OCTANE NUMBER	DISTILLATION, ASTM D86				RES LOSS %											
								RES, ASTM D2699	MOT, ASTM D2700	R+M --- LB	20V/L ASTM D439 F	TEMPERATURE, F (CORRECTED TO 760 MM HG)											
78	23	52.7	0.020	-	-	0.01	101.3	90.8	96.1	9.9	138	92	106	120	149	184	239	267	328	353	394	1.0	1.7
79	3	61.0	-	-	-	2.73	99.6	91.6	95.6	9.2	136	88	105	118	139	160	212	258	342	377	424	1.0	1.5
80	3	60.4	.037	-	-	2.51	99.8	92.1	96.0	9.1	140	96	110	124	149	178	222	259	336	370	414	.7	1.8
81	8	61.7	.036	0	-	2.36	99.6	91.6	95.6	9.8	136	90	104	120	146	173	219	255	335	362	411	1.1	2.0
82	15	61.4	.022	-	-	2.91	99.8	92.4	96.1	10.0	134	92	106	120	142	167	217	258	325	357	395	1.2	1.8
83	24	63.1	.032	-	-	2.38	99.7	92.0	95.9	9.7	135	92	109	123	144	167	211	250	315	352	394	1.1	1.5
84	14	59.1	.022	-	-	2.79	99.7	92.0	95.9	9.6	133	90	105	114	131	155	219	289	326	343	381	.8	1.5
85	24	58.4	.021	-	-	2.63	99.8	92.5	96.2	9.2	140	91	110	124	148	175	227	272	334	362	402	1.2	1.4
86	6	60.4	.024	-	-	2.82	99.9	92.9	96.4	9.7	136	88	100	117	144	171	223	261	324	363	403	1.1	1.5
87	6	60.8	.022	-	-	2.55	99.7	91.9	95.8	9.9	134	89	103	117	142	168	213	256	331	368	417	.8	2.0
88	14	59.3	.018	-	-	2.69	99.5	91.9	95.7	9.5	138	89	108	125	149	174	221	274	345	377	422	1.2	1.4
89	1	61.9	-	-	-	2.86	99.7	92.4	96.1	9.2	132	103	-	107	131	-	197	-	311	-	387	1.0	2.0
90	3	59.1	.029	-	-	2.69	100.1	92.2	96.2	8.3	142	94	110	122	143	164	218	264	320	356	412	1.3	.7
91	27	61.2	.024	-	-	2.77	99.6	92.3	96.0	9.7	137	92	108	124	148	173	219	256	311	337	382	1.0	1.6
92	9	60.5	.026	-	-	2.22	99.7	91.8	95.8	9.7	133	90	104	115	138	158	212	258	322	357	398	.7	1.5
93	6	62.6	.042	-	-	3.00	99.8	92.6	96.2	9.7	137	92	108	122	148	174	216	253	334	381	410	.6	1.7
94	6	59.0	.015	-	-	2.81	99.7	91.9	95.8	9.6	136	91	107	118	141	163	222	286	345	371	430	.9	1.4
95	6	60.7	.026	-	-	2.41	99.6	91.8	95.7	9.4	136	91	104	117	141	166	214	254	327	369	413	.7	2.1
AVERAGE	SAMPLES	60.2	.026	0	-	2.51	99.8	92.0	95.9	9.5	136	92	106	119	143	169	216	263	328	362	405	1.0	1.6

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
 DIST. 4 APPALACHIAN
 OHIO, W. VA., WESTERN N.Y., WESTERN PA., EASTERN KY., AND PART OF MD.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM	SULF, ASTM D1266	GUM, ASTM D381	PHOS., ASTM D3231	LEAD, ASTM D526	OCTANE RES, ASTM D2699	NUMBER MOT, ASTM D2700	RVP, ASTM D323 LB	20V/L ASTM D439 LB	DISTILLATION, ASTM D86						RES LOSS %						
											TEMPERATURE, F (CORRECTED TO 76.0 MM HG)												
											IBP	5	10	20	30	50	70						
96	7	59.8	0.042	-	-	2.09	93.7	86.3	90.0	9.6	134	91	107	118	139	161	210	358	396	433	1.0	1.3	
97	21	60.6	0.018	2	0.016	2.39	94.0	86.6	90.3	9.7	134	90	105	119	141	164	211	267	344	383	423	1.0	1.5
98	16	60.6	0.026	1	0.019	2.00	93.8	86.5	90.2	9.8	134	89	106	118	137	156	201	262	347	386	424	1.0	1.3
99	13	60.2	0.024	2	0.016	1.31	93.7	86.1	89.9	10.1	131	90	106	117	137	161	208	259	328	362	401	0.9	1.2
100	1	58.5	0.050	2	0.017	2.32	93.3	85.4	89.4	8.8	141	89	107	119	140	170	236	296	371	403	435	1.0	1.0
101	16	60.3	0.079	0	0.019	1.93	93.7	86.5	90.1	10.3	131	87	103	117	139	162	209	261	335	383	425	1.1	1.6
102	13	59.8	0.041	2	0.017	2.02	94.5	86.7	90.6	9.7	133	90	106	116	138	160	209	264	345	387	428	1.1	1.3
103	10	61.7	0.042	1	0.010	2.32	94.3	86.5	90.4	10.4	130	88	105	117	137	159	208	268	344	376	418	*9	1.9
104	8	60.1	0.029	1	0.024	1.87	93.7	86.2	89.9	9.7	136	93	108	121	147	170	219	272	342	376	414	*9	1.3
105	1	61.7	0.010	0	0.000	2.69	94.2	-	47.1	10.8	129	86	103	115	137	159	211	265	331	364	408	1.0	3.0
106	18	61.6	0.030	2	0.017	1.92	93.6	86.2	89.9	9.8	132	90	106	118	138	159	201	252	332	370	411	1.0	1.5
107	14	61.1	0.028	3	0.014	2.70	94.2	86.7	90.5	9.9	132	91	104	117	137	158	206	260	349	389	429	1.1	1.6
108	1	60.6	0.034	2	0.020	1.84	94.0	86.1	90.1	10.3	129	89	104	116	136	156	203	263	343	378	426	*9	2.1
109	3	60.3	0.049	-	-	1.87	94.3	86.8	90.6	10.0	132	88	104	116	138	162	214	262	326	372	404	1.7	.8
110	15	59.9	0.033	1	0.017	2.06	94.3	86.3	90.3	9.9	133	88	105	118	138	160	209	262	341	381	427	1.0	1.3
111	7	61.5	0.037	2	0.011	2.21	93.5	85.7	89.6	9.7	133	90	106	117	139	161	205	262	352	395	435	1.3	1.4
112	7	61.7	0.049	0	0.015	2.44	94.3	86.5	90.4	9.5	133	91	106	116	137	156	209	251	331	372	426	1.0	1.4
AVERAGE	SAMPLES	60.6	0.037	1	0.015	2.12	93.9	86.3	90.1	9.9	133	89	105	118	139	161	209	265	342	381	422	1.1	1.5

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 4 APPALACHIAN--CONTINUED
OHIO, W. VA., WESTERN N.Y., WESTERN PA., EASTERN KY., AND PART OF MD.

PREMIUM-PRICE GASOLINE

ITEM	SAW- PLES	GR., ASTM D287	SULF., ASTM D1266	GUM, ASTM D381	LEAD, ASTM D526	PHOS. ASTM D3231	RES, ASTM D2699	OCTANE NUMBER	RVP, ASTM D323	20V/L ASTM D439	DISTILLATION, ASTM D.6												
											TEMPERATURE, F (CORRECTED TO 760 MM HG) PERCENT EVAPORATED			RES LOSS %									
											IBP	5	10	20	30	50							
113	6	54.4	0.007	0	0.001	0.004	101.0	90.7	95.9	10.5	133	84	99	112	141	180	234	263	325	353	390	0.6	2.2
114	7	62.9	.025	0	.000	2.34	99.3	91.5	95.4	9.9	135	90	107	121	145	169	215	259	340	388	440	1.1	2.2
115	3	64.7	.032	-	-	2.05	99.3	91.4	95.4	10.4	130	87	101	114	138	165	212	248	322	370	416	1.2	1.6
116	1	64.1	.024	2	.002	2.40	98.9	91.9	95.4	10.8	127	90	100	113	135	160	206	250	345	384	431	1.0	3.0
117	14	62.3	.017	1	.002	2.92	100.0	92.1	96.1	10.2	132	93	105	118	141	165	212	254	326	362	407	1.1	1.9
118	18	64.5	.014	1	.000	2.42	99.6	92.5	96.1	10.2	133	93	107	120	145	170	211	248	321	359	403	1.0	2.3
119	8	64.4	.017	1	.008	2.17	99.0	92.8	95.9	10.1	132	90	106	119	141	165	207	244	316	353	388	1.0	1.9
120	10	62.3	.012	0	.002	2.45	99.6	91.2	95.5	11.4	125	86	101	111	132	155	208	253	321	355	395	1.0	2.0
121	15	61.2	.007	1	.000	2.02	92.1	95.7	10.3	130	87	102	114	136	159	208	267	336	369	421	1.1	2.4	
122	13	58.1	.010	1	.004	1.99	100.3	92.1	96.2	10.1	137	90	105	123	151	183	229	269	331	371	414	1.2	1.8
123	1	56.0	.010	0	.000	3.16	99.4	-	49.7	10.7	133	85	99	119	150	176	228	280	344	375	421	1.0	2.0
124	15	62.8	.063	0	.000	2.48	98.9	91.9	95.4	10.9	130	87	101	117	143	169	212	248	319	364	417	1.0	2.2
125	1	60.3	.017	0	.008	2.20	99.4	92.0	95.7	10.3	131	94	103	113	135	161	222	271	348	372	427	1.0	4.0
126	13	60.0	.008	1	.009	2.30	98.8	91.8	95.3	10.3	132	88	101	114	139	166	220	270	328	351	393	1.0	2.2
127	13	60.0	.012	3	.001	2.56	99.7	91.8	95.8	9.8	134	89	106	119	141	163	214	255	313	349	399	1.0	2.0
128	21	62.8	.010	0	.004	2.72	100.0	92.0	96.0	10.3	132	91	105	118	141	164	211	252	319	354	402	1.1	2.1
129	7	63.0	.040	-	2.45	99.6	92.3	96.0	9.5	135	93	105	118	140	165	213	258	329	367	419	1.0	1.6	
AVERAGE	SAMPLES	61.4	.019	1	.003	2.27	99.5	91.9	95.7	10.3	132	89	103	117	141	167	215	258	328	364	411	1.0	2.2

DIST. 5 MICHIGAN

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. ^a ASTM D287	SULF, ASTM D1266	GUM, ASTM D381	PHOS., ASTM D526	LEAD, ASTM D3231	OCTANE NUMBER	RVP, ASTM D439	20V/L ASTM D323 LB	DISTILLATION, ASTM D86						RES LOSS %					
										TEMPERATURE, F (CORRECTED TO 76.0 MM HG)											
										IBP	5	10	20	30	50	95					
130	9	60.2	0.032	2	0.004	2.06	93.8	90.2	9.8	90	105	118	137	158	207	268	382	422	0.9	1.7	
131	5	59.3	.064	3	.017	1.42	93.9	86.0	90.0	86	103	117	139	163	214	272	351	388	429	1.0	1.2
132	20	59.9	.041	1	.010	2.34	94.4	86.6	90.5	90	104	118	139	161	209	262	340	378	426	0.9	1.8
132	5	59.8	.022	3	.004	1.34	93.9	85.9	89.9	89	102	115	136	160	213	274	345	372	413	.6	1.7
133	5	59.8	.022	3	.007	1.63	94.1	86.0	90.1	90	104	118	141	166	214	263	339	377	426	1.0	1.8
134	11	59.2	.104	2	.007	1.70	94.6	86.9	90.8	90	102	116	138	162	217	273	345	381	424	1.0	1.8
135	10	58.5	.052	1	.007	1.70	93.9	85.9	89.8	89	103	116	141	169	226	285	356	391	423	.9	1.3
136	5	57.7	.033	1	.004	1.39	93.3	86.0	89.7	89	105	119	140	162	210	261	338	385	408	.5	1.0
137	63	60.5	.005	0	.005	1.71	93.3	86.0	89.7	89	108	119	140	162	210	261	338	385	408	.5	1.0
138	9	60.0	.037	1	.012	1.36	93.7	85.9	89.8	89	105	118	141	165	211	264	340	374	415	.8	1.6
139	4	60.7	.055	2	.006	2.35	93.6	86.3	90.0	90	107	119	141	163	212	269	346	382	428	1.0	.8
140	2	-	-	-	-	-	94.3	86.8	90.6	90	104	118	140	163	210	258	330	362	413	.9	1.8
141	4	60.4	.049	2	.000	2.28	94.3	86.0	90.2	90	107	120	143	169	214	265	350	382	425	.9	1.2
142	11	59.9	.074	1	.010	2.58	95.0	86.0	90.5	90	103	117	138	160	209	262	340	375	415	1.1	1.7
AVERAGE	SAMPLES	59.7	.047	2	.007	1.85	94.1	86.2	90.2	90	101	133	189	213	267	344	379	421	.9	1.5	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR. ^a ASTM D267	SULF, ASTM D1266	GUM, ASTM D381	LEAD, ASTM D526	PHOS., ASTM D3231	OCTANE NUMBER	RVP, ASTM D439	DISTILLATION, ASTM D86						RES. LOSS %								
									RES., ASTM D2699	R+M ASTM D2700	20V/L LB	TEMPERATURE, F (CORRECTED TO 760 MM HG)											
												IBP	5	10	20	30							
143	11	62.0	0.020	1	0.008	2.65	99.8	92.2	96.0	10.5	130	91	103	117	138	160	205	241	300	330	378	0.8	2.1
144	4	63.1	.011	2	.000	2.28	99.5	91.8	95.7	10.5	133	87	104	119	146	172	218	253	320	352	401	.6	1.4
145	3	-	-	-	-	-	99.1	91.4	95.3	10.0	133	92	102	117	143	170	212	244	312	347	405	.9	2.2
146	4	62.3	.027	2	.004	2.51	99.4	92.2	95.8	10.4	132	88	103	118	143	171	214	255	341	384	426	.8	1.7
147	9	65.4	.010	1	.000	1.89	99.6	93.0	96.3	10.4	131	89	103	117	143	171	213	244	314	350	396	.9	2.0
148	11	63.8	.040	0	.005	2.58	99.2	93.6	96.4	10.7	134	86	109	125	154	180	220	264	331	361	405	.6	1.2
149	5	63.7	.030	1	.004	1.81	99.4	92.2	95.8	10.4	131	85	101	116	139	167	213	244	311	371	423	.9	1.6
150	1	66.8	-	-	-	2.56	99.8	91.1	95.5	10.2	127	96	-	119	132	-	185	-	311	-	396	1.0	1.0
151	11	60.9	.013	1	.000	1.62	100.0	92.3	96.2	10.2	133	92	103	120	146	177	221	253	315	349	401	1.0	2.4
152	11	66.7	.070	2	.008	2.01	98.8	92.1	95.5	10.7	129	88	100	115	142	169	207	237	320	366	418	1.0	2.6
153	1	66.5	-	-	-	3.00	99.9	91.7	95.8	9.8	128	93	-	117	131	-	184	-	309	-	390	1.0	2.0
154	5	60.5	.006	2	.009	2.17	99.2	92.2	95.7	9.9	136	90	108	122	149	177	223	264	324	352	407	.9	2.1
155	8	60.3	.013	2	.001	2.57	99.0	91.8	95.4	9.9	133	91	105	118	139	160	211	255	318	355	400	.9	1.8
156	17	59.1	.014	1	.000	2.84	99.3	92.5	95.9	9.6	137	92	105	121	150	175	212	243	297	335	388	.8	2.5
157	5	64.0	.028	1	.007	1.85	99.2	91.9	95.6	9.8	135	88	107	121	145	172	217	253	341	382	424	.8	1.7
AVERAGE	106	63.2	.024	1	.004	2.31	99.4	92.1	95.8	10.2	132	90	104	119	143	171	210	250	319	356	404	.9	1.9

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 6 NORTH ILLINOIS AND NORTHERN ILL., NORTHERN IND., EASTERN IOWA, AND WIS.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR. ^a ASTM D287	SULF, ASTM D1266	GUM, ASTM D381	PHOS., ASTM D526	LEAD, ASTM D3231	RES, ASTM D2699	OCTANE NUMBER	RVP, ASTM D439	DISTILLATION, ASTM D86						RES %	LOSS %						
										TEMPERATURE, °F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED										
										IBP	5	10	20	30	50	70	90	95					
158	7	60.0	0.047	3	0.001	2.59	95.0	86.1	90.6	9.4	135	94	106	119	140	161	209	262	337	372	417	0.8	2.0
159	7	59.8	0.041	2	0.001	2.50	94.3	86.3	90.3	9.8	134	94	107	119	142	165	213	265	352	387	430	0.9	1.9
160	3	60.0	0.097	-	-	1.53	94.0	85.7	89.9	10.5	130	90	104	117	138	161	209	261	348	421	440	0.7	2.3
161	3	58.8	0.016	-	-	1.87	93.0	86.5	89.8	9.2	139	94	107	119	145	172	225	278	340	381	425	1.0	2.0
162	3	59.6	0.048	-	-	1.58	93.8	85.9	89.9	10.1	133	90	107	118	142	166	212	265	347	389	424	2.0	1.0
163	3	59.6	-	-	-	1.44	93.7	86.2	90.0	10.1	131	90	103	118	138	159	206	252	342	386	428	0.9	1.9
164	1	-	-	-	-	-	92.8	86.4	89.6	10.2	131	92	103	117	137	159	207	262	342	378	418	1.0	1.8
165	3	59.4	0.027	-	-	1.85	93.9	86.3	90.1	10.2	132	90	106	118	142	166	214	264	342	375	422	1.3	0.7
166	7	59.9	0.071	-	-	1.64	94.4	86.3	90.4	9.2	137	92	107	120	143	166	215	260	335	371	416	0.9	1.6
167	7	58.8	0.033	1	0.000	1.84	95.0	87.0	91.0	9.2	138	93	107	119	142	166	222	277	352	386	429	1.0	1.8
168	8	60.0	0.048	0	0.002	1.84	93.6	86.1	89.9	10.1	131	90	100	115	137	158	205	258	334	372	413	1.0	1.9
169	1	-	-	-	-	-	95.0	86.9	91.0	9.6	130	90	99	113	134	156	206	260	337	370	424	0.9	2.3
170	7	59.8	0.045	0	0.001	2.58	94.4	86.4	90.4	9.6	134	93	106	118	139	161	208	262	341	380	421	0.9	1.7
171	4	59.8	0.050	3	0.002	1.71	93.8	85.9	89.9	11.4	129	89	107	120	142	168	214	263	354	385	428	1.1	1.7
AVERAGE SAMPLES	64	59.6	0.048	2	0.001	1.91	94.1	86.3	90.2	9.9	133	92	105	118	140	163	212	264	343	382	424	1.0	1.8

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE												DISTILLATION, ASTM D86											
ITEM	SAM- PLES	GR. ^a	SULF, ASTH D267	PHOS., ASTH D301	GUM, ASTH D3231	LEAD, ASTH D526	RES, ASTH D2699	OCTANE NUMBER	RVP, ASTH D439	20V/L ASTH D439	TEMPERATURE, F (CORRECTED TO 76.0 MM HG)	RES LOSS											
												IBP	5	10	20	30	50	70	90	95	EP	%	X
186	6	60.2	0.056	-	-	94.6	86.4	90.5	9.0	137	90	106	118	140	163	208	257	337	377	415	1.0	1.6	
187	6	57.9	.031	-	-	93.9	86.2	90.1	9.6	137	88	104	118	143	170	225	285	354	381	414	1.1	1.7	
188	3	59.3	.055	-	-	93.6	85.0	89.3	9.6	136	88	104	117	142	170	222	285	354	389	422	1.0	2.0	
189	2	58.7	.009	-	-	94.1	86.6	90.4	9.5	137	90	105	120	144	170	226	285	354	383	410	0.9	1.6	
190	9	59.2	.033	-	-	93.8	86.0	89.9	9.6	137	88	106	120	147	173	221	274	354	396	430	0.9	2.1	
191	3	59.9	.037	-	-	93.4	85.3	89.4	9.5	136	91	105	118	140	165	220	268	368	411	440	0.6	1.9	
192	2	59.8	.056	-	-	93.2	86.3	89.8	8.9	139	91	108	122	145	168	216	268	345	386	434	1.2	1.3	
193	6	59.8	.046	-	-	93.9	86.3	90.1	9.8	132	87	101	113	135	157	208	268	355	390	435	0.9	1.6	
194	9	60.7	.042	-	-	94.2	86.6	90.4	9.8	132	88	103	115	136	158	206	258	334	370	414	0.9	1.7	
195	3	59.8	.033	-	-	94.1	86.3	90.2	8.9	139	92	111	124	147	168	211	255	332	369	423	0.9	1.6	
196	3	58.5	.022	-	-	93.7	85.1	89.4	9.4	140	90	110	123	151	179	232	286	360	389	424	0.9	1.1	
197	6	61.2	.056	-	-	94.2	85.7	90.0	9.4	134	89	105	118	140	165	219	271	351	387	426	0.8	1.6	
198	9	60.3	.030	1	0.003	1.97	93.9	86.5	90.2	9.6	134	90	106	117	140	162	213	271	349	397	422	1.0	1.8
199	9	58.7	.045	-	-	94.4	86.9	90.7	9.0	140	91	107	120	148	174	224	272	342	381	424	1.0	1.5	
200	3	59.6	.063	-	-	94.2	86.3	90.3	10.5	131	86	101	115	140	165	216	269	342	390	422	1.2	1.8	
201	3	59.0	.028	-	-	1.77	93.9	86.4	90.2	10.0	133	87	105	119	144	167	206	256	349	381	406	0.7	2.3
202	3	61.0	.027	-	-	1.77	93.6	86.9	90.3	9.5	134	92	101	114	138	162	212	273	358	385	418	0.4	2.6
203	3	59.3	.035	-	-	1.70	93.6	86.4	90.0	10.0	133	88	106	118	141	165	217	273	351	392	416	0.6	1.2
204	10	60.0	.033	0	•002	2.76	94.0	87.1	90.6	9.4	137	90	107	118	145	172	222	276	344	387	415	0.9	2.2
205	9	60.4	.027	-	-	2.09	94.3	86.8	90.6	9.1	138	92	109	121	143	167	216	265	337	373	419	1.0	1.7
AVERAGE		59.7	.039	1	•003	1.86	93.9	86.3	90.1	9.5	136	89	106	119	142	167	217	271	349	386	421	0.9	1.8

SAMPLES 107

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAMPLES	GR. ASTM API	SULF, ASTM WT %	GUM, ASTM MG	PHOS, ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	DISTILLATION, ASTM D86						RES LOSS %										
								TEMPERATURE, F (CORRECTED TO 760 MM HG)		20V/L		ASTM D439		IBP		5								
								RES, ASTM D2699	MOT, ASTM D2700	R+M ASTM D2700	G/GAL	LB	ASTM D2700	F	5	10								
206	6	62.1	0.028	-	-	2.43	99.9	91.8	95.9	8.8	-	140	93	107	120	145	172	215	252	313	341	390	0.9	1.4
207	3	61.8	.001	-	-	2.61	99.2	91.6	95.5	8.6	-	136	88	103	111	133	155	206	263	338	373	426	1.1	1.4
208	9	63.6	.023	-	-	2.19	99.3	92.3	95.8	9.6	-	134	89	104	118	140	163	207	249	323	359	409	1.0	1.5
209	2	66.0	.019	-	-	1.99	99.6	93.6	96.6	9.6	-	138	88	107	125	159	184	210	233	316	367	390	1.1	1.9
210	2	64.3	.036	-	-	1.78	98.5	91.4	95.0	9.8	-	136	89	107	121	150	177	215	248	327	360	416	1.1	1.4
211	6	64.9	.021	-	-	2.28	99.3	93.2	96.3	9.4	-	139	88	107	125	155	181	213	239	323	367	399	1.2	1.9
212	2	65.1	-	-	-	2.74	100.1	91.9	96.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
213	3	62.8	.040	-	-	2.77	99.5	92.1	95.8	8.9	-	138	90	109	122	148	170	202	248	319	362	402	.8	1.7
214	6	63.2	.023	-	-	2.80	100.1	92.0	96.1	9.2	-	136	90	107	119	140	164	211	245	319	363	409	.8	1.5
215	9	61.8	.029	-	-	2.53	99.8	92.0	95.9	9.9	-	132	88	102	114	137	162	210	250	315	352	403	.8	2.0
216	3	64.3	.018	-	-	2.71	99.8	92.9	96.4	9.3	-	138	91	113	128	151	176	211	242	319	362	407	.9	2.1
217	9	62.6	.003	2	0.004	1.82	99.0	92.5	95.8	9.5	137	93	111	123	150	173	215	250	319	369	406	.9	2.0	
218	6	65.0	.041	-	-	2.56	99.9	91.0	95.0	9.8	-	133	92	106	118	138	160	208	238	321	371	409	.9	1.9
219	3	64.1	.010	-	-	2.04	99.0	91.9	95.5	10.4	-	133	87	105	120	150	179	217	250	327	384	406	.6	1.9
220	9	58.5	.019	-	-	1.97	100.0	92.1	96.1	9.0	-	145	92	110	128	165	197	232	262	324	375	410	.7	2.0
221	3	64.5	.039	-	-	2.33	99.7	92.3	96.0	9.9	-	134	86	101	117	147	173	208	238	316	355	416	1.4	2.6
222	3	60.0	.005	-	-	1.81	99.6	91.5	95.6	9.5	-	135	90	105	118	141	163	211	261	336	366	411	.3	1.7
223	3	59.1	.029	-	-	2.77	99.9	91.8	95.9	9.0	-	138	92	107	119	142	165	213	261	332	352	398	1.0	1.5
224	9	60.8	.023	-	-	2.71	99.6	91.9	95.8	9.3	-	137	89	106	120	146	170	214	249	316	354	408	.9	1.7
225	10	61.2	.008	0	.002	3.00	99.4	92.0	95.7	9.4	-	138	92	110	123	149	176	217	244	301	344	377	.9	2.0
226	3	64.4	.010	-	-	1.58	99.0	92.2	95.6	9.1	-	137	92	108	120	146	170	210	245	314	358	396	.9	1.6
AVERAGE	SAMPLES	62.8	.021	1	.003	2.35	99.5	92.1	95.8	9.4	137	90	107	120	147	172	212	249	321	362	404	.9	1.8	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 8 LOWER MISSISSIPPI
MISS., LA., EASTERN AND SOUTHERN ARK., AND WESTERN TENN.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	GUM, ASTM D381	LEAD, ASTM D526	PHOS. ASTM D3231	RES, ASTM D2700	OCTANE NUMBER	RVP, ASTM D323 LB	20V/L ASTM D439	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) PERCENT EVAPORATED						RES LOSS X %						
											R+M ---	IBP	5	10	20	30	50						
											IBP F												
227	10	61.4	0.032	-	-	2.53	94.0	86.7	90.4	8.9	137	90	110	121	140	161	203	256	343	376	412	0.9	1.5
228	3	60.4	0.023	-	-	2.09	94.3	87.0	90.7	8.0	138	98	116	124	136	149	183	242	350	386	422	1.0	1.0
229	3	61.4	0.074	-	-	3.67	93.0	87.2	90.1	8.1	143	99	111	126	146	166	208	257	338	389	436	0.9	1.6
230	3	63.3	0.022	-	-	2.79	93.3	88.1	90.7	8.9	137	94	111	121	141	161	205	258	335	352	412	0.7	1.3
231	3	60.2	0.063	-	-	2.38	94.0	86.1	90.1	9.2	137	92	112	125	144	164	211	274	353	386	432	0.9	1.1
232	7	61.4	0.054	0	-	2.69	93.6	86.7	90.2	9.0	138	95	116	126	144	163	207	263	339	365	417	1.0	1.5
233	3	-	-	-	-	95.2	87.6	91.4	9.3	140	92	109	128	153	174	221	275	360	390	419	1.0	1.8	
234	11	60.2	0.052	-	-	2.72	94.4	87.1	90.8	9.5	134	89	106	119	138	158	206	275	361	393	423	1.0	1.4
235	12	60.6	0.033	-	-	1.84	93.6	87.0	90.3	9.2	136	90	109	121	141	161	201	262	342	371	414	0.9	1.1
236	10	61.8	0.054	0	-	2.47	93.5	86.5	90.8	9.0	136	92	108	122	141	159	201	257	326	364	412	1.1	1.2
237	2	60.2	-	-	-	94.4	85.6	90.0	9.5	138	94	109	122	144	167	221	278	358	391	426	0.6	1.8	
238	12	59.4	0.037	-	-	2.37	94.4	86.9	90.7	9.3	136	88	108	121	145	169	218	271	357	385	416	0.9	1.6
239	11	61.3	0.065	-	-	2.52	94.0	86.6	90.3	8.6	139	93	111	123	141	160	205	264	341	374	416	1.0	1.5
240	9	59.1	0.026	-	-	1.28	93.9	86.5	90.2	9.0	137	91	107	120	143	163	210	265	340	376	414	1.2	1.7
241	1	59.1	-	-	-	3.06	92.8	86.9	89.9	9.6	133	72	-	107	134	-	219	-	364	-	432	1.0	1.0
242	3	60.4	0.057	-	-	2.70	94.2	85.6	89.9	8.6	139	90	106	119	141	162	211	266	351	387	436	1.1	1.9
243	13	60.0	0.034	-	-	2.80	94.2	86.9	90.6	9.2	137	90	111	124	144	166	212	262	335	366	414	1.0	1.6
244	2	59.3	0.041	-	-	2.67	94.5	86.9	90.7	9.1	136	90	107	117	139	159	210	275	361	389	420	0.7	1.3
245	3	63.0	0.033	-	-	2.58	93.6	87.9	90.8	9.0	139	94	114	126	147	168	214	268	339	368	410	1.5	0.5
AVERAGE SAMPLES		60.7	0.044	0	-	2.54	93.9	86.6	90.4	9.0	137	91	110	122	142	163	209	265	347	378	420	1.0	1.4

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 8 LOWER MISSISSIPPI--CONTINUED
 MISS., LA., EASTERN AND SOUTHERN ARK., AND WESTERN TENN.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR. ^a	ASTM D287	SULF. ^b	GUM, ^c ASTM D381	PHOS. ^d ASTM D526	LEAD, ASTM D3231	OCTANE RES. ^e ASTM D2699	NUMBER ASTM D2700	RVP, ASTM D439	20V/L	DISTILLATION, ASTM D86						RES LOSS %					
												TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED								
												IBP	5	10	20	30	50						
246	9	53.1	0.015	-	-	0.002	101.0	90.8	95.9	9.7	136	86	99	114	141	177	279	335	358	397	0.9	1.8	
247	3	57.6	.023	-	-	2.69	99.5	91.4	95.5	8.0	143	94	109	122	140	161	218	278	352	378	426	1.1	1.9
248	3	64.2	.064	-	-	2.99	99.4	92.6	96.0	9.3	134	88	104	116	136	157	204	251	341	390	432	1.2	1.8
249	15	63.3	.034	0	0.000	3.03	99.1	91.8	95.5	9.7	133	86	109	120	140	162	208	256	341	367	399	1.0	1.0
250	3	61.6	.046	-	-	2.76	99.9	92.5	96.2	9.8	133	87	102	116	139	164	213	248	312	355	405	.8	2.2
251	7	63.4	.039	0	-	2.65	99.5	91.5	95.5	9.1	138	89	106	122	146	170	213	251	332	359	409	.9	2.2
252	9	58.2	.030	-	-	2.65	99.1	91.5	95.3	9.2	140	91	111	127	153	179	225	271	338	368	410	1.1	1.3
253	12	60.7	.019	-	-	2.94	99.8	92.4	96.1	9.6	137	89	107	121	145	171	223	263	332	365	412	1.0	1.3
254	13	60.5	.027	-	-	2.30	99.6	91.8	95.7	9.0	136	87	107	120	140	159	206	249	312	340	400	1.0	1.3
255	10	61.1	.056	0	-	2.72	99.4	91.7	95.6	8.8	140	91	108	123	147	170	213	256	325	363	416	1.0	1.2
256	3	63.8	-	-	-	-	100.2	93.8	97.0	9.0	142	93	111	128	157	184	222	254	334	374	416	*9	2.6
257	13	58.3	.017	-	-	2.49	100.0	92.3	96.2	9.2	141	91	109	125	151	177	229	271	331	359	406	1.1	1.5
258	12	60.7	.046	-	-	2.91	99.6	92.4	96.0	8.9	142	92	113	129	152	175	224	266	327	360	409	1.0	1.2
259	9	58.8	.026	-	-	1.84	99.7	91.5	95.6	9.0	141	92	110	125	152	175	217	257	326	363	400	1.0	1.7
260	1	58.6	-	-	-	3.04	99.0	92.0	95.5	9.7	133	74	-	111	135	-	213	-	354	-	423	1.0	2.6
261	6	61.7	.072	-	-	3.25	98.8	91.1	95.0	8.8	142	92	111	125	154	180	220	257	333	372	423	1.0	1.8
262	13	61.4	.020	-	-	3.00	99.7	92.0	95.9	9.4	138	89	109	123	148	174	217	253	307	335	389	*9	1.4
263	3	59.4	.021	-	-	2.52	99.8	92.3	96.1	9.5	138	88	105	122	150	180	225	261	325	363	408	1.0	1.5
264	3	62.8	.022	-	-	2.83	98.4	91.1	94.8	9.1	136	92	107	120	140	162	204	255	333	360	402	1.0	1.0
AVERAGE SAMPLES	147	60.5	.034	0	.000	2.59	99.6	91.9	95.8	9.2	138	89	108	122	146	171	217	260	331	363	410	1.0	1.6

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 9 NORTH PLAINS
MINN., N. DAK., AND S. DAK.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	GUM, ASTM D381	LEAD, ASTM D526	PHOS. ASTM D3231	OCTANE RES, ASTM D2699	RVP, ASTM D323 F	20V/L ASTM D439	DISTILLATION, ASTM D86						RES LOSS %							
										TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED										
										IBP	5	10	20	30	50	70	95	EP					
265	6	61.3	0.042	-	2.65	93.1	84.5	88.8	9.5	134	96	108	121	140	160	204	254	330	363	401	0.7	1.9	
266	3	61.0	0.021	-	1.82	92.4	85.1	88.8	9.2	135	92	107	118	138	158	207	265	337	381	428	1.4	1.1	
267	3	61.4	0.044	-	2.15	92.1	84.8	88.5	10.0	127	86	103	112	128	143	190	255	344	385	420	1.0	1.5	
268	3	62.0	0.055	-	2.48	93.2	86.1	89.7	10.1	128	88	102	113	133	151	195	245	324	363	406	1.0	1.5	
269	3	62.2	0.056	-	2.74	92.4	85.7	89.1	10.0	127	86	100	110	128	146	188	240	314	356	406	0.6	1.9	
270	6	60.8	0.074	-	1.80	92.3	84.4	88.4	8.9	136	89	104	117	136	155	203	261	346	392	425	*9	1.7	
271	3	59.2	0.052	-	1.83	93.0	85.2	89.1	9.4	137	90	108	116	142	168	226	282	349	388	434	1.2	.8	
272	3	61.4	0.048	-	1.88	93.1	85.8	89.5	9.1	136	94	113	123	141	159	205	259	333	385	422	1.0	.5	
273	4	58.8	0.063	0	1.57	92.4	85.2	88.8	10.7	130	88	98	116	140	167	213	240	329	340	424	1.0	2.1	
274	3	61.2	0.051	-	1.80	92.0	85.1	88.7	8.8	133	88	100	110	129	148	195	253	338	379	422	*9	2.1	
275	6	60.1	0.044	-	1.92	92.8	84.7	88.8	9.3	134	91	105	118	137	156	201	256	337	379	407	*9	1.8	
276	2	60.1	-	-	2.11	93.1	85.2	89.2	-	-	-	-	-	-	-	-	-	-	-	-	-		
AVERAGE	SAMPLES	60.8	.050	0	-	2.06	92.7	85.2	89.0	9.5	132	90	104	116	136	156	202	255	335	374	418	1.0	1.5

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 9 NORTH PLAINS--CONTINUED
MINN., N. DAK., AND S. DAK.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR.-% ASTM D287	SULF.% ASTM D1266	GUM, ASTM D361	PHOS. ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D323	20V/L	DISTILLATION, ASTM D86						RES LOSS %							
										TEMPERATURE, F (CORRECTED TO 760 MM HG)	PERCENT EVAPORATED	IBP	5	10	20	30	50	70	95	EP			
277	3	67.1	0.057	-	-	-	99.0	93.3	96.2	9.5	138	90	107	123	154	178	211	238	320	361	410	1.2 0.6	
278	6	67.3	.011	-	-	-	98.1	93.9	96.6	10.4	132	92	104	119	147	173	206	237	312	362	395	1.1 2.1	
279	3	62.0	.041	-	-	-	97.3	96.7	90.3	93.5	9.2	137	90	107	119	147	170	210	253	316	369	406	1.5 1.0
280	3	61.7	.034	-	-	-	94.3	99.2	92.5	95.9	9.2	135	86	104	119	141	165	204	235	314	358	404	1.2 1.3
281	6	66.8	.015	-	-	-	1.78	99.2	92.0	95.6	9.7	134	92	106	120	142	166	206	239	307	346	392	1.0 1.6
282	3	64.2	.040	-	-	-	2.35	98.9	92.0	95.5	9.2	137	92	109	123	148	172	206	240	322	369	414	1.2 1.0
283	3	68.4	.058	-	-	-	2.40	99.6	94.4	97.0	10.0	133	92	109	123	149	174	204	229	304	347	396	1.2 1.6
284	3	62.2	.078	-	-	-	2.63	99.1	92.3	95.7	8.6	141	88	107	123	150	174	213	247	323	347	404	0.9 1.6
285	3	63.6	.010	-	-	-	2.87	99.3	95.6	97.5	9.0	141	86	105	124	157	184	216	243	309	351	382	1.2 1.8
286	3	63.6	.017	-	-	-	3.25	99.3	96.7	98.0	9.5	136	84	101	117	149	179	213	242	309	341	390	0.8 2.2
287	6	64.8	.035	-	-	-	2.59	99.0	93.3	96.2	9.1	138	86	104	124	151	174	209	240	318	359	402	0.9 2.0
288	3	67.9	.069	-	-	-	2.26	99.3	93.8	96.6	9.8	133	86	104	126	151	176	202	225	296	352	390	0.8 2.2
289	3	64.1	.034	-	-	-	2.45	99.2	92.9	96.1	8.8	140	90	105	121	148	174	211	243	320	368	404	1.4 1.6
290	4	67.5	.064	0	-	-	2.33	99.2	93.5	96.4	10.3	134	90	107	123	152	177	210	236	320	379	400	1.1 0.9
AVERAGE	SAMPLES	65.1	.040	0	-	-	2.52	99.0	93.3	96.2	9.5	136	89	106	121	149	174	209	239	314	358	399	1.1 1.6

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 10 CENTRAL PLAINS
 NEBR., CENTRAL AND WESTERN IOWA, NW MO., AND NORTHERN KANS.
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., API	SULF., ASTM D287	GUM, ASTM D381	PHOS., ASTM D3231	LEAD, MOT., ASTM D526	OCTANE NUMBER, R+M	RVP, 20°/L	DISTILLATION, ASTM D86						RES LOSS %								
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED											
									D323	D439	F	IBP	5	10	20								
291	14	60.8	0.069	1	-	3.04	93.7	85.0	89.4	9.3	136	94	110	124	145	166	205	251	327	364	396	0.9	2.1
292	10	61.7	.052	1	-	1.78	92.6	85.2	88.9	9.0	136	93	108	120	139	160	205	258	346	388	423	.9	1.4
293	5	61.5	.036	-	-	1.55	92.4	84.9	88.7	9.7	131	90	107	117	136	155	199	248	321	369	416	1.2	1.3
294	10	60.5	.037	0	-	2.01	92.0	85.2	88.6	9.4	138	93	109	124	147	170	219	274	357	398	432	1.0	1.7
295	6	62.9	.049	-	-	1.51	93.1	85.9	89.5	8.4	140	95	111	123	141	160	205	250	326	375	417	1.2	1.6
296	3	61.1	-	-	-	1.81	92.8	85.3	89.1	8.7	139	96	113	125	144	163	208	259	338	380	422	1.0	1.0
297	15	62.2	.039	1	-	1.69	92.4	86.0	89.2	8.1	141	92	110	124	141	160	206	253	329	374	419	1.0	1.3
298	3	62.2	-	-	-	1.78	93.3	85.6	89.5	8.2	140	92	108	118	140	160	202	257	333	374	420	1.0	1.0
299	4	63.0	.050	1	-	1.77	92.2	85.3	88.8	9.2	139	99	116	126	147	172	221	278	364	399	414	.9	1.1
300	1	60.4	.066	1	-	1.50	91.3	84.6	88.0	8.1	144	115	125	133	149	167	208	264	358	400	414	.6	1.8
301	3	63.1	.011	-	-	1.54	92.5	85.7	89.1	8.2	140	90	107	120	141	163	206	257	326	376	410	1.4	1.6
302	9	61.0	.045	-	-	1.94	92.9	85.4	89.2	8.6	139	93	111	122	142	161	207	259	336	383	424	1.2	1.1
AVERAGE	SAMPLES	61.7	.045	1	-	1.83	92.6	85.3	89.0	8.7	139	95	111	123	143	163	208	259	338	382	417	1.0	1.4

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

PREMIUM-PRICE GASOLINE												DISTILLATION, ASTM D86											
ITEM	SAMPLES	GR. ^a	SULF, ASTM D287	PHOS, ASTM D381	GUM, ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, 20°/L	TEMPERATURE, F (CORRECTED TO 760 MM HG)				RES LOSS										
									MOT, ASTM D2699	MOT, ASTM D2700	R+M, ASTM D2699	D323 LB	IBP	5	10	20	30	50	70	90	95	EP	%
303	13	65.0	0.038	1	-	2.74	99.1	91.8	95.5	9.6	134	92	106	119	141	164	207	241	296	334	371	0.7	2.2
304	9	64.1	0.035	-	-	2.46	99.2	92.3	95.8	8.6	140	91	110	123	146	169	211	245	323	361	413	1.1	1.1
305	3	66.4	0.041	-	-	1.97	99.0	91.5	95.3	8.1	142	92	108	121	145	167	208	239	311	352	412	1.2	1.3
306	10	64.5	0.035	1	-	2.31	98.9	91.4	95.2	8.0	143	94	112	125	149	172	213	250	322	366	411	1.1	1.5
307	4	65.9	0.036	1	-	1.99	98.9	92.9	95.9	8.9	142	96	120	132	158	179	212	255	332	382	411	0.9	1.5
308	3	65.1	-	-	-	2.14	99.3	92.3	95.6	9.0	139	92	114	127	148	169	210	243	315	368	407	* 8	1.2
309	15	66.1	0.038	0	-	1.79	98.6	91.8	95.2	8.4	141	95	115	128	146	166	208	241	326	379	419	1.1	1.6
310	3	64.6	-	-	-	2.18	99.2	91.8	95.5	8.5	141	92	110	122	146	169	211	246	323	369	414	1.1	1.9
311	6	65.3	0.026	-	-	2.16	98.8	91.4	95.1	8.6	140	92	109	123	145	168	207	240	313	355	407	* 2	1.6
312	10	63.3	0.013	0	-	2.54	98.2	92.1	95.2	9.6	136	89	102	119	147	175	219	256	331	366	413	* 8	2.1
313	8	64.4	0.039	-	-	2.16	98.3	90.8	94.6	8.9	138	91	110	123	146	167	208	245	324	369	416	1.1	1.4
314	9	64.8	0.044	1	-	2.37	99.0	92.4	95.7	9.2	137	92	107	122	145	166	212	241	328	376	422	1.1	1.3
AVERAGE SAMPLES	65.0	0.035	1	-	2.23	98.9	91.9	95.4	8.6	139	92	110	124	147	169	211	245	320	365	410	1.0	1.6	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 11 SOUTH PLAINS
 SOUTHERN KANS., SW MO., WESTERN ARK., OKLA., AND NORTHERN TEX.
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR. ASTH API	SULF' ASTH WT X	GUM ASTH D381 MG	PHOS. ASTH D3231 G/GAL	LEAD, ASTH D2700 Q/GAL	OCTANE NUMBER RES, R+M 2	RVP, 20V/L			DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG)			RES LOSS									
								ASTM D323 LB			ASTM D439 F			PERCENT EVAPORATED									
								IBP	5	10	20	30	50	70	90	EP	%						
315	6	63.4	0.027	-	2.47	92.5	86.1	89.3	8.7	137	93	109	121	138	156	198	248	353	409	447	1.2	1.6	
316	5	59.9	.029	0	2.05	92.0	85.7	86.9	8.6	140	90	106	120	142	165	214	269	347	387	428	.8	2.3	
317	8	61.7	.044	1	0.000	2.12	92.4	86.4	89.4	9.1	137	93	108	120	140	163	210	261	335	375	415	1.3	1.5
318	10	61.2	.045	1	-	1.92	93.6	86.1	89.1	8.3	139	96	113	123	140	156	198	252	345	386	421	1.2	1.3
319	3	62.3	-	-	-	2.56	92.5	85.6	89.1	9.7	133	92	112	124	144	163	200	241	334	387	421	1.2	1.8
320	3	60.8	-	-	-	2.04	93.1	86.1	89.6	9.0	137	93	110	124	143	163	205	260	343	383	427	.9	1.6
321	3	-	-	-	-	93.0	86.1	89.6	9.3	134	91	102	117	139	160	205	256	332	368	400	1.1	2.2	
322	8	62.9	.034	1	-	1.62	92.1	85.3	88.7	9.0	140	92	113	127	150	171	218	257	327	370	403	1.0	1.9
323	3	61.7	.022	-	-	2.13	92.8	86.6	89.7	9.9	131	90	107	117	135	153	202	267	337	376	414	1.3	1.7
324	8	62.6	.034	1	-	2.33	92.5	85.9	89.2	9.5	132	87	105	116	135	153	197	254	338	383	421	1.1	1.9
325	3	61.1	-	-	-	3.58	94.4	87.6	91.0	8.2	142	90	108	119	141	165	217	280	361	397	424	.8	1.2
326	6	60.9	.013	-	-	2.52	93.2	86.7	90.0	8.6	139	93	110	122	142	161	212	269	343	384	420	1.0	1.5
327	17	60.8	.029	0	-	1.77	93.2	86.1	89.7	8.7	139	93	109	123	144	165	210	262	338	375	413	.8	2.0
328	6	65.8	.021	1	-	3.12	93.0	87.8	90.4	9.2	137	98	111	127	145	164	207	247	315	356	399	1.1	1.4
329	3	57.0	-	-	-	2.28	94.2	87.0	90.6	7.3	153	100	115	128	152	180	248	302	356	390	410	.7	1.6
330	6	62.0	.044	-	-	1.75	92.9	85.9	89.4	9.2	135	92	108	117	136	155	206	266	341	380	417	1.1	1.4
331	13	60.6	.037	1	-	2.09	92.4	85.8	89.1	8.7	139	92	107	120	140	161	211	268	349	384	426	1.0	1.6
332	8	61.7	.026	-	-	2.20	92.6	86.2	89.4	9.5	133	91	104	117	136	155	200	264	338	375	409	1.0	1.7
333	14	60.2	.058	2	-	2.79	94.1	86.1	90.4	8.9	139	92	108	122	146	169	212	260	335	371	407	.8	1.9
334	2	60.9	.034	-	-	2.63	93.2	86.4	89.8	9.0	137	90	108	121	143	164	208	257	339	375	416	1.3	1.7
AVERAGE	SAMPLES	61.4	.033	1	.000	2.31	93.0	86.3	89.7	8.9	138	92	109	121	142	162	209	262	340	361	417	1.0	1.7

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 11 SOUTHERN PLAINS--CONTINUED
 SOUTHERN KANS., SW MO., WESTERN ARK., OKLA., AND NORTHERN TEX.
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR. ASTH	SULF. ASTH	GUM, ASTH	PHOS. ASTH	LEAD, ASTH	OCTANE NUMBER	RVP, ASTH	DISTILLATION, ASTM D86						RES LOSS %								
									RES, HOT	R+M	ASTH	D439	TEMPERATURE, F (CORRECTED TO 760 MM HG)										
													IBP	5	10	20	30	50	70	90	95	EP	
									LB	F													
335	5	63.1	-	-	-	-	99.4	92.2	95.8	8.9	143	94	112	128	155	183	222	262	340	380	425	1.5	1.3
336	5	60.9	0.009	-	-	-	98.3	92.0	95.2	8.9	138	92	105	120	144	169	206	241	308	342	394	.7	1.7
337	8	64.5	.042	0	0.000	2.48	99.1	92.7	95.9	9.4	137	92	109	124	149	172	210	241	319	363	409	1.1	1.5
338	10	63.3	.035	0	-	2.65	99.4	92.0	95.7	8.6	139	93	110	121	142	162	207	255	337	380	417	1.2	1.6
339	3	64.1	-	-	-	3.43	99.9	91.9	95.9	9.9	134	88	103	118	143	167	216	264	358	392	432	.9	1.6
340	3	63.5	-	-	-	2.59	99.7	91.6	95.7	8.7	141	92	110	124	149	174	219	256	331	373	424	.9	1.6
341	8	62.9	.019	-	-	2.41	98.8	91.9	95.4	9.6	134	90	104	119	142	162	205	240	307	339	380	1.1	1.6
342	7	66.8	.029	1	-	1.78	99.1	92.4	95.8	8.7	141	91	109	125	151	175	209	238	320	361	403	.8	2.0
343	3	62.3	.019	-	-	2.70	98.9	92.4	95.7	9.5	138	87	101	118	148	179	224	267	343	376	423	1.2	1.8
344	6	63.1	.028	1	-	2.58	99.0	93.2	96.1	9.2	141	87	110	127	156	184	262	326	378	414	454	1.1	1.7
345	3	61.5	-	-	-	2.82	99.8	96.3	96.3	8.3	139	90	108	119	139	155	199	229	276	318	378	1.3	.7
346	6	62.2	.013	-	-	2.66	99.5	92.3	95.9	8.9	139	92	107	122	145	168	214	256	320	359	404	1.0	2.0
347	17	64.6	.024	-	-	2.31	99.0	92.1	95.6	8.9	140	94	111	126	149	172	213	249	327	366	406	.8	1.6
348	5	66.2	.019	1	-	3.20	99.2	93.5	96.4	9.4	138	98	110	128	146	169	217	254	338	377	416	1.0	1.3
349	3	59.3	-	-	-	2.95	99.9	92.1	96.0	8.3	139	90	109	117	133	155	215	269	330	351	402	1.0	.4
350	5	64.9	.025	-	-	2.42	99.1	93.2	96.2	9.0	141	91	109	124	153	181	222	256	338	380	423	1.0	1.5
351	12	60.3	.019	1	-	2.80	98.6	92.3	95.5	8.9	141	94	110	125	151	177	224	259	333	372	414	1.0	1.6
352	7	63.4	.016	-	-	3.09	99.7	93.7	96.7	9.4	139	92	107	124	152	179	219	256	335	373	418	.8	2.1
353	15	61.6	.027	2	-	2.98	99.3	92.5	95.9	9.3	140	89	108	127	156	182	218	250	310	345	381	.8	2.0
354	2	66.5	.040	-	-	2.85	99.1	92.8	96.0	8.4	144	90	114	130	154	180	214	241	325	366	412	1.4	1.6
AVERAGE	SAMPLES	63.3	.024	1	.000	2.69	99.2	92.5	95.9	9.0	139	91	108	123	148	172	215	252	327	365	409	1.0	1.6

DIST. 12 SOUTH TEXAS

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. API	SULF, ASTM D287	PHOS., ASTM D1266	LEAD, ASTM D3231	GUM, ASTM D361	OCTANE NUMBER	RVP, ASTM D439	DISTILLATION, ASTM D86						RES LOSS %									
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			20V/L PERCENT EVAPORATED												
									IBP	5	10	20	30	50	70									
355	6	62.7	-	-	-	-	93.3	86.9	90.1	8.9	136	92	110	122	139	156	202	266	339	371	413	1.0	1.4	
356	9	60.9	0.033	-	-	-	93.7	86.6	90.2	9.4	137	92	110	124	143	163	215	273	348	378	420	1.0	1.3	
357	10	60.9	0.043	0	0.001	3.22	94.0	87.2	90.6	8.5	140	94	111	125	143	162	206	266	344	377	411	1.1	1.2	
358	3	61.5	-	-	-	-	92.3	85.8	89.1	8.4	143	97	118	132	153	171	212	254	308	335	356	.8	1.5	
359	3	60.7	-	-	-	-	93.9	86.3	90.1	9.3	135	98	108	120	141	161	203	250	329	377	406	1.0	1.5	
360	4	59.2	-	-	-	-	94.1	86.7	90.4	9.8	135	91	112	129	148	169	211	258	335	367	407	1.0	1.3	
361	3	60.6	-	-	-	-	93.9	86.3	90.1	9.3	134	89	107	118	138	158	203	247	325	362	407	.9	1.1	
362	7	60.9	.037	2	.003	2.23	94.4	87.0	90.7	8.4	136	97	112	123	136	149	190	255	351	376	418	1.0	1.1	
363	1	61.9	.037	4	.001	2.00	94.6	86.1	90.4	8.8	134	92	108	119	137	153	190	250	346	392	416	1.0	2.0	
364	9	63.4	.022	1	-	2.62	93.3	87.9	90.6	9.5	135	96	109	123	142	161	205	253	326	361	405	1.0	1.6	
365	5	58.2	.023	0	.005	2.59	93.6	86.6	90.1	8.0	146	100	110	128	150	177	227	297	352	388	420	1.1	1.4	
366	3	61.0	-	-	-	-	1.96	94.0	85.9	90.0	9.4	135	89	105	118	138	161	210	268	336	369	398	1.2	1.6
367	11	60.1	.029	1	.005	1.91	93.4	86.3	89.9	8.6	140	94	112	125	143	160	211	273	350	384	422	1.1	1.5	
368	11	59.5	.034	0	.009	2.71	94.0	86.8	90.4	8.0	146	97	114	131	152	172	218	268	344	379	423	1.0	1.5	
369	3	60.1	-	-	2.12	94.4	85.9	90.2	9.0	137	90	109	122	143	162	205	252	335	379	412	1.0	2.0		
AVERAGE	SAMPLES	60.8	.032	1	.004	2.35	93.8	86.6	90.2	8.9	138	93	110	124	143	162	207	262	338	373	409	1.0	1.5	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 12 SOUTH TEXAS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAW- PLES	GR./ ASTM D287	SULF., ASTM D1266	GUM, ASTM D381	PHOS., ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D439	DISTILLATION, ASTM D86						RES LOSS %		
									TEMPERATURE, F CORRECTED TO 760 MM HG)								
									IBP	5	10	20	30	50	70	95	EP
370	1	53.0	0.002	0	0.013	1.50	100.8	91.3	86	100	113	143	178	232	262	345	394
371	11	63.5	.019	0	.001	3.13	99.6	93.1	96.4	8.4	141	96	111	126	145	162	205
372	3	61.6	-	-	-	3.80	99.4	89.6	94.5	8.0	135	96	112	119	129	140	173
373	3	62.4	-	-	-	-	99.4	91.7	95.6	9.2	139	90	108	123	149	177	222
374	3	60.4	-	-	-	-	2.99	99.7	91.9	95.8	9.1	139	90	108	124	148	177
375	8	59.1	.038	-	-	-	2.87	99.4	91.7	95.6	9.2	140	88	108	125	152	178
376	3	59.7	-	-	-	-	3.02	99.5	92.0	95.8	9.6	136	89	105	119	145	171
377	7	59.1	.019	1	.003	2.86	99.6	91.7	95.7	8.9	136	94	111	122	136	155	205
378	10	61.9	.019	-	-	2.54	99.6	91.9	95.8	9.4	137	91	110	123	144	163	212
379	6	65.0	-	-	-	2.30	99.4	93.8	96.6	9.3	135	87	106	117	134	156	216
380	9	64.4	.023	1	-	3.04	99.3	93.4	96.4	9.5	136	94	108	123	143	166	214
381	5	58.1	.005	1	.005	2.88	100.0	92.3	96.2	8.5	142	97	105	124	145	169	223
382	3	63.8	-	-	-	3.01	99.3	91.1	95.2	9.4	135	88	107	121	140	162	211
383	11	59.6	.024	1	.001	2.79	99.4	92.3	95.9	9.3	139	93	109	125	147	169	229
384	11	59.9	.026	1	.001	3.07	100.0	92.0	96.0	8.4	145	92	113	130	155	178	220
AVERAGE		60.8	.019	1	.004	2.85	99.6	92.0	95.8	9.0	138	91	108	122	144	167	215
SAMPLES																	329

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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 197³
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
 DIST. 13 SOUTH MT. STATES
 SW KANS., OKLA. AND TEX. PANHANDLES, W. TEX., N. MEX., COLO., UTAH, ARIZ., NEV., AND E. CALIF.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	GUM, ASTM D381	PHOS. ASTM D526	LEAD, ASTM D2699	OCTANE NUMBER RES, ASTM D2700	RVP, ASTM D323 --- IBP LB	DISTILLATION, ASTM D86			DISTILLATION, F (CORRECTED TO 760 MM HG)			RES LOSS % %								
									TEMPERATURE, F PERCENT EVAPORATED			TEMPERATURE, F PERCENT EVAPORATED											
									5	10	20	50	70	95									
385	4	60.5	0.021	-	-	1.32	92.6	84.6	86.6	9.0	140	90	110	127	277	349	380	420	0.9	1.6			
386	5	60.0	0.024	-	-	1.57	93.4	84.8	89.1	9.3	138	90	111	123	172	217	349	380	416	.8	1.5		
387	24	59.4	0.041	2	0.000	1.60	92.4	84.9	88.7	8.2	143	96	114	129	149	169	213	258	338	375	416		
388	3	61.6	0.055	-	-	1.77	91.1	84.4	87.6	8.9	139	89	111	123	145	167	214	269	356	393	414		
389	3	-	-	-	-	92.7	85.9	89.3	86.8	145	100	118	137	161	183	225	274	361	406	424	1.0	1.2	
390	22	60.9	0.033	1	0.000	2.38	92.0	85.7	88.9	7.9	145	99	118	130	148	166	209	259	337	378	415	1.0	1.1
391	16	59.0	0.050	2	0.000	2.23	93.1	85.7	89.4	8.8	140	93	111	125	146	168	217	275	353	389	424	*9	1.5
392	3	59.7	0.032	-	-	1.85	91.3	84.3	87.8	8.8	138	93	115	126	147	163	200	252	342	380	412	.7	1.8
393	17	61.6	0.117	-	0.000	1.59	92.2	84.5	88.4	7.3	148	103	122	134	149	166	207	262	347	385	419	1.0	9
394	21	65.2	0.019	1	-	2.97	91.5	86.3	88.9	8.7	138	98	113	128	145	162	200	245	334	373	415	1.0	1.2
395	15	57.6	0.051	2	0.000	2.00	92.6	85.6	89.2	8.1	145	97	117	131	152	171	215	271	348	384	414	1.0	9
396	3	62.1	0.016	-	-	1.35	91.7	85.5	88.6	9.2	136	95	118	124	142	162	206	259	334	384	417	.9	1.1
397	15	58.7	0.020	1	0.000	1.76	93.2	85.5	89.4	8.4	143	97	113	128	148	168	216	273	342	374	417	1.0	1.6
398	37	58.4	0.051	2	0.000	2.22	93.1	85.3	89.2	8.1	146	96	115	131	153	176	222	272	346	379	414	1.0	1.3
399	23	57.6	0.032	4	0.000	1.56	92.4	84.8	88.6	8.4	145	96	117	132	154	174	218	271	346	380	414	1.1	1.2
400	21	60.3	0.061	1	0.000	2.46	92.3	85.9	89.1	8.4	144	96	116	130	152	173	218	265	338	379	416	1.0	1.1
AVERAGE SAMPLES	232	60.2	0.042	2	0.000	1.92	92.4	85.5	88.8	8.5	142	96	115	129	149	169	213	265	345	382	417	*9	1.3

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAMPLES	GR./ASTM D267	SULF., ASTM D1266	GUM, ASTM D381	PHOS., ASTM D526	LEAD, ASTM D3231	RES., ASTM D2699	OCTANE NUMBER	DISTILLATION, ASTM D86														
									TEMPERATURE, F (CORRECTED TO 760 MM HG)														
									PERCENT EVAPORATED			RES. LOSS											
									5	10	20	50	95										
									IBP	5	10	30	EP										
									F	LB	ASTM D439	ASTM D323	RES.										
											%	X	X										
401	6	61.4	0.016	-	2.61	98.1	89.6	93.9	9.0	143	89	110	125	153	179	233	280	354	387	429	0.8	1.5	
402	6	61.0	0.017	-	2.29	97.1	89.4	93.3	9.8	137	91	110	124	149	174	220	269	338	375	414	0.6	1.7	
403	23	59.4	0.026	1	0.000	2.43	98.5	91.3	94.9	8.6	143	94	112	127	149	172	220	261	330	369	410	1.0	1.4
404	3	61.8	0.027	-	2.12	96.5	90.2	92.9	8.4	144	90	115	126	152	176	218	259	343	360	416	1.0	1.0	
405	13	62.2	-	-	2.68	97.7	91.3	94.5	8.8	144	94	115	132	158	181	223	265	345	389	419	1.0	1.3	
406	23	62.8	0.022	1	0.000	2.75	98.8	92.5	95.7	8.2	143	96	115	128	147	167	212	247	327	370	407	0.9	1.0
407	16	62.9	0.040	2	0.000	2.38	98.9	91.6	95.3	9.0	140	90	109	123	146	172	220	262	331	372	412	0.8	1.5
408	2	59.9	-	-	2.66	96.9	88.8	92.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
409	19	66.6	0.033	-	0.000	1.54	98.2	91.3	94.8	7.9	144	98	116	128	144	163	210	245	332	379	416	0.8	1.0
410	20	67.3	0.018	1	0.000	3.02	98.5	93.3	95.9	9.0	139	97	111	127	146	167	211	252	347	386	421	1.0	1.4
411	15	58.7	0.020	1	0.000	2.59	99.3	92.1	95.7	8.2	146	96	116	132	155	177	219	259	327	367	403	1.0	1.1
412	2	62.9	0.024	-	2.25	96.4	89.6	93.0	9.3	135	89	107	120	140	163	208	251	339	379	426	0.9	1.1	
413	21	62.3	0.028	1	0.001	2.73	98.5	92.1	95.3	8.7	141	93	113	126	148	171	215	257	335	377	415	1.0	1.2
414	24	60.9	0.026	4	0.000	2.23	98.4	91.2	94.8	8.2	149	100	120	136	161	183	224	268	333	367	407	1.0	1.3
415	36	60.9	0.024	1	0.000	2.57	98.8	91.4	95.1	8.2	145	97	117	132	154	177	219	257	322	355	395	0.9	1.3
416	14	59.2	0.023	1	0.000	2.66	98.6	91.3	95.0	8.5	144	95	113	130	153	176	221	265	332	367	415	1.0	1.6
AVERAGE		61.9	0.025	1	0.000	2.47	98.1	91.0	94.6	8.7	142	94	113	128	150	173	218	260	336	375	414	0.9	1.3

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS - CONTINUED

ITEM	SAMPLES	GRW ^a	SULF, ASTM D287	GUM, ASTM D381	PHOS. ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D323	DISTILLATION, ASTM D86			DISTILLATION, F (CORRECTED TO 760 MM HG)											
									RES, ASTM D2699	MOT, ASTM D2700	TEMPERATURE, F D439	PERCENT EVAPORATED											
												IBP	5	10									
417	5	58.2	0.084	1	0.000	1.24	94.2	84.2	10.2	134	88	106	120	144	170	223	278	347	379	420	0.8	2.5	
418	11	62.3	.054	1	.001	1.75	92.9	86.1	9.0	138	92	110	123	144	166	211	261	344	383	422	1.1	1.5	
419	7	60.9	.048	1	.001	1.94	93.5	86.0	8.9	137	87	106	119	141	162	209	260	340	378	420	1.0	1.6	
420	12	60.9	.044	1	.001	1.38	94.2	84.8	8.5	132	85	103	115	137	160	209	258	334	370	407	.9	2.3	
421	3	60.5	.034	1	-	1.87	93.0	89.0	9.4	136	91	112	124	145	167	208	256	335	377	426	.6	1.5	
422	11	60.7	.103	1	-	2.05	92.4	85.5	9.0	138	85	107	122	144	166	213	266	345	381	427	1.0	1.2	
423	18	60.6	.051	1	.022	1.92	92.6	85.3	8.9	136	89	108	120	142	164	211	263	343	379	418	.9	1.8	
424	13	61.0	.037	0	.001	1.30	94.3	85.4	8.9	130	83	99	112	133	156	204	255	332	370	412	1.0	2.2	
425	2	62.2	-	-	-	3.04	93.1	85.2	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
426	11	61.7	.042	0	.001	1.83	93.1	85.8	8.5	9.3	135	85	106	117	140	159	206	256	335	371	415	.9	1.7
427	14	59.7	.037	1	.000	1.45	94.3	84.8	8.6	9.9	134	91	107	120	142	165	212	265	342	373	410	1.0	2.1
428	11	61.8	.031	1	.001	1.54	93.6	85.6	8.7	9.6	135	90	107	120	140	162	212	268	341	372	408	1.1	1.7
429	11	60.7	.033	0	.004	1.83	92.3	85.7	8.9	9.5	133	87	104	115	137	159	206	259	340	378	416	1.0	1.9
AVERAGE	SAMPLES	60.9	.050	1	.004	1.78	93.3	85.3	9.5	135	88	106	119	141	163	210	262	340	376	416	.9	1.9	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAMPLES	GR. ^a ASTM D287	SULF. ^a ASTM D1266	GUM, ASTM D381	PHOS., ASTM D3231	LEAD, ASTM D526	RES., ASTM D2699	OCTANE NUMBER	RVP/ MOT., R+M ---	20V/L	DISTILLATION, ASTM D86												
											TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED									
											IBP	5	10	20	30	50	70	90	95	EP	%	X	
430	13	64.3	0.026	1	0.000	2.33	99.5	91.2	95.4	10.6	129	81	98	111	135	162	208	242	317	356	394	1.0	2.5
431	8	64.6	0.031	1	0.001	2.30	99.0	93.0	96.0	8.9	139	85	105	120	145	171	211	244	332	370	416	1.0	2.0
432	16	64.4	0.039	1	0.000	2.32	98.6	92.0	95.3	9.2	139	89	110	125	149	174	215	249	337	376	409	1.0	1.7
433	7	63.2	0.030	1	0.000	2.43	99.7	91.4	95.6	9.5	138	90	109	122	150	180	220	253	317	352	397	1.6	2.7
434	4	64.9	0.036	-	1.78	98.5	91.0	94.0	9.6	138	89	108	124	154	179	213	246	329	370	422	1.6	2.0	
435	10	65.0	0.100	1	-	2.56	98.3	91.6	95.0	9.1	138	83	107	122	147	171	211	245	340	385	419	1.9	2.0
436	19	62.5	0.034	1	0.004	2.21	98.7	91.5	95.1	9.9	136	89	109	122	149	176	221	258	335	372	409	1.0	1.9
437	11	64.7	0.027	0	0.001	2.01	99.5	91.4	95.5	10.2	131	83	100	115	140	167	209	241	312	357	393	1.0	2.7
438	11	65.3	0.024	0	0.038	1.96	98.7	91.9	95.3	9.7	132	84	105	117	138	162	203	237	313	351	395	1.0	1.8
439	10	65.9	0.020	1	0.002	2.04	98.8	91.9	95.4	9.4	137	92	112	125	147	168	208	235	305	357	374	0.9	1.4
440	14	62.1	0.021	1	0.000	2.39	99.7	91.3	95.5	9.9	136	91	108	122	148	172	217	255	326	358	401	1.0	2.1
441	11	64.7	0.038	1	0.001	2.42	98.7	92.0	95.5	9.3	137	87	105	121	144	170	211	243	333	374	414	0.9	2.0
442	3	61.1	0.019	-	2.43	99.2	92.4	95.8	9.7	141	92	115	132	164	191	226	258	317	349	410	81	1.2	
AVERAGE	SAMPLES	64.1	0.034	1	0.005	2.24	99.0	91.8	95.4	9.6	136	87	107	121	147	173	213	247	324	362	404	0.9	2.0

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
 DIST. 15 PACIFIC NORTHWEST
 WESTERN WASH. AND WESTERN OREG.
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

ITEM	SAMPLES	REGULAR-PRICE GASOLINE												DISTILLATION, ASTM D86											
		GR.° ASTM D287	SULF. ASTM D1266	GUM, ASTM D381	LEAD, ASTM D526	OCTANE NUMBER RES, ASTM D2699	RVP, ASTM D323	20V/L ASTM D439	TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED						RES %	LOSS %								
										5	10	20	30	50	70	90	95	EP							
443	7	59.9	0.006	3	0.001	2.18	91.7	86.8	89.3	11.6	13.0	86	98	118	151	183	229	270	334	364	409	0.9	3.3		
444	5	60.4	.024	2	.001	1.32	93.7	86.2	90.0	9.4	135	89	107	118	140	161	208	262	342	377	418	.8	1.6		
445	4	65.2	.006	1	.000	3.30	93.5	88.3	90.9	10.3	128	93	107	118	134	151	192	235	301	325	366	.7	1.8		
446	5	60.3	.028	1	.002	2.53	92.9	86.0	89.5	9.4	139	92	112	123	152	175	219	265	348	379	409	1.0	1.1		
447	8	60.2	.032	1	.000	1.37	94.1	86.3	90.2	9.8	133	91	106	118	136	158	210	269	352	387	426	.9	1.8		
448	8	61.5	.014	1	.000	1.96	92.2	86.4	89.3	10.6	130	88	103	116	140	162	208	254	335	366	412	1.0	1.8		
449	7	61.9	.012	1	.000	1.87	92.3	86.3	89.3	10.4	130	87	104	118	139	160	203	250	326	360	399	1.1	1.7		
450	8	60.8	.019	1	.000	2.07	93.0	86.4	89.7	9.6	137	91	107	123	147	171	216	266	349	385	424	1.0	1.9		
451	7	59.4	.016	8	.000	2.15	93.3	86.4	89.9	10.1	133	96	108	121	142	165	213	268	347	383	416	1.2	2.0		
AVERAGE SAMPLES	59	61.1	.017	2	.000	2.08	93.0	86.6	89.8	10.1	133	90	106	119	142	165	211	260	337	370	409	1.0	1.9		

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS - CONTINUED

TABLE 3. — MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS—CONTINUED
DIST. 16 NORTH CALIFORNIA

ITEM	SAMPLES	GR. ^a ASTM D287	SULF. ASTM D1266	GUM, ASTM D361	PHOS. ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVP, ASTM D323 D439	DISTILLATION, ASTM D86						RES. LOSS X %								
									TEMPERATURE, F (CORRECTED TO 760 MM HG)														
									IBP	5	10	20	30	50	70								
461	8	58.5	0.042	2	0.001	1.85	94.7	85.1	89.9	8.7	141	94	113	128	149	170	215	268	341	371	412	1.0	1.3
462	2	59.3	=	=	-	1.89	91.2	84.2	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
463	5	58.1	.050	3	.000	1.88	94.9	85.3	90.1	8.4	142	97	114	126	149	171	215	264	344	375	413	1.1	1.6
464	5	57.7	.026	1	.001	1.65	93.6	86.9	90.3	9.1	139	91	108	122	145	170	218	265	320	347	392	1.0	2.0
465	8	59.0	.058	1	.002	2.05	93.9	84.6	89.3	8.4	141	97	113	127	145	164	204	252	334	364	397	1.0	1.6
466	2	59.2	=	=	-	1.63	91.6	82.9	87.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
467	8	56.1	.009	1	.000	1.53	94.3	86.2	90.3	8.5	145	96	113	129	153	177	231	291	358	385	423	1.0	1.5
468	9	60.9	.045	1	.004	1.65	93.8	85.7	89.8	8.8	142	95	114	130	151	172	215	260	333	364	404	1.0	1.5
469	8	60.8	.009	1	.001	.45	93.3	85.3	89.3	8.9	138	94	110	125	144	164	205	255	333	366	415	1.1	1.9
470	9	58.0	.057	1	.000	1.75	95.1	85.3	90.2	8.7	143	97	114	128	151	174	226	282	353	376	415	1.0	1.7
471	8	57.9	.005	1	.000	.47	93.1	85.8	89.5	8.5	141	98	113	125	145	164	212	274	334	364	410	1.0	1.7
AVERAGE	SAMPLES	58.7	.033	1	.001	1.53	93.6	85.2	89.4	8.7	141	95	112	127	148	170	216	268	339	368	409	1.0	1.6

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED
DIST. 16 NORTH CALIFORNIA--CONTINUED

ITEM	GR. ^a ASTM D287 API	SULF, ASTM D1266 MT	GUM, ASTM D381 MG	PHOS. ASTM D526 G/GAL	LEAD, ASTM D2699 G/GAL	OCTANE RES., MOT, ASTM D2700	NUMBER R+M --- LB	20V/L ASTM D323 F	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) PERCENT EVAPORATED					RES LOSS X %									
									IBP														
									5	10	20	30	50										
472	8	58.3	0.009	1	0.000	1.99	99.6	92.1	95.9	8.0	143	93	110	128	155	180	224	266	333	359	398	0.9	1.9
473	3	53.1	-	-	1.97	98.6	91.0	94.6	9.0	149	87	113	134	175	206	247	277	322	356	402	1.0	1.7	
474	5	58.5	.009	1	.001	1.64	99.8	92.4	96.1	8.8	142	93	111	125	150	176	223	263	328	352	402	1.0	1.5
475	5	54.3	.011	1	.001	2.10	99.0	91.0	95.0	8.5	149	92	110	134	168	197	237	271	323	349	400	.9	1.6
476	8	59.3	.016	1	.003	2.47	99.6	92.0	95.0	8.5	147	98	116	135	162	186	226	266	337	366	404	.9	1.7
477	3	58.5	-	-	-	1.57	99.6	91.9	95.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
478	8	56.8	.008	1	.000	1.90	99.9	91.5	95.7	8.4	146	95	115	132	157	181	223	265	329	359	400	1.0	1.6
479	8	58.4	.013	1	.001	2.37	99.3	91.3	95.3	8.7	143	95	113	131	154	178	221	262	329	358	406	1.0	1.8
480	8	59.4	.015	1	.000	2.56	98.9	91.2	95.1	8.7	140	96	114	126	146	164	207	259	334	364	412	1.0	1.6
481	8	59.4	.013	1	.001	1.66	99.8	92.2	96.0	9.1	141	92	108	126	151	176	221	261	324	354	397	1.0	1.8
482	6	55.3	.006	1	.001	2.56	97.9	90.9	94.4	8.6	143	93	112	132	154	174	219	259	312	340	383	1.0	2.0
AVERAGE SAMPLES	57.4	.011	1	.001	2.07	99.3	91.6	95.5	8.7	144	93	112	131	157	182	225	265	327	356	400	1.0	1.7	

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1973
DIST. 17 SOUTH CALIFORNIA--CONTINUED
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	PHOS., ASTM D381	GUM, ASTM MG	LEAD, ASTM D526	OCTANE NUMBER RES, MOT, ASTM D2699	RVP, ASTM D439	DISTILLATION, ASTM D86														
									TEMPERATURE, F (CORRECTED TO 760 MM HG)														
									IBP	5	10	20	30	50									
494	10	57.6	0.046	1	0.001	2.66	98.8	90.8	94.8	8.9	140	93	108	124	144	167	226	272	328	352	400	1.0	1.3
495	3	55.3	-	-	-	2.15	99.5	90.9	95.2	8.7	147	92	115	134	166	190	231	268	325	356	415	.8	2.2
496	5	57.7	.042	1	.001	2.44	99.1	90.9	95.0	9.3	136	90	108	121	142	166	225	272	329	361	412	1.0	1.4
497	8	58.3	.028	0	.001	2.74	99.1	91.8	95.5	8.7	142	91	107	125	151	177	224	267	332	364	412	1.0	1.7
498	10	58.2	.017	1	.000	3.08	98.6	91.5	95.1	8.9	140	92	110	124	146	169	216	261	332	373	419	.9	1.7
499	11	61.1	.034	1	.001	2.97	98.8	91.0	94.9	8.7	137	94	110	124	141	158	198	243	305	334	389	1.0	1.5
500	6	59.1	.021	1	.003	2.48	98.8	91.5	95.2	9.4	136	89	107	119	143	161	213	263	320	360	406	1.0	1.2
501	3	55.0	-	-	-	2.68	99.4	91.3	95.4	9.0	143	89	114	131	161	186	223	265	340	376	424	.9	1.6
502	12	59.8	.022	1	.001	2.76	99.5	91.8	95.7	9.1	141	94	112	128	151	177	218	261	326	362	405	1.0	1.4
503	11	57.5	.072	1	.001	2.22	99.8	90.6	95.2	8.8	143	92	111	129	154	178	222	264	335	365	422	1.0	1.7
504	12	60.9	.021	1	.001	2.93	99.2	91.5	95.4	9.0	139	94	110	125	146	171	214	262	321	353	398	1.0	1.8
AVERAGE SAMPLES	58.2	.034	1	.001	2.65	99.1	91.2	95.2	9.0	141	92	110	126	150	173	219	263	327	360	409	1.0	1.6	

TABLE 4. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR BRANDS IN EACH DISTRICT

DISTRICT NO. AND NAME	NO. OF SAM- BRANDS	GUM, ASTM D227	SULF' ASTM D1266	PHOS. ASTM D361	LEAD, ASTM D526	OCTANE NUMBER	DISTILLATION, ASTM D86										
							TEMPERATURE, F (CORRECTED TO 760 MM HG)										
							1BP	5	10	20	30	50	70				
1 NORTHEAST	52	60.7	0.040	0	-	94.2	87.0	90.6	92.8	93.2	94.0	94.0	94.0				
2 MID ATLANTIC COAST	209	60.1	.037	1	0.017	94.1	86.7	90.4	91.7	91.0	91.9	91.9	91.9				
3 SOUTHEAST	200	60.2	.037	0	-	92.3	94.1	86.9	90.3	93.6	92.1	91.0	91.0				
4 APPALACHIAN	171	60.6	.037	1	*0.15	92.1	93.9	86.3	90.1	90.9	91.8	91.0	91.0				
5 MICHIGAN	158	59.6	.047	2	*0.07	1.85	94.1	86.2	90.2	10.0	1.33	89.1	89.1				
6 NORTH ILLINOIS	64	59.6	.048	2	*0.01	1.91	94.1	86.3	90.2	10.0	1.33	89.1	89.1				
7 CENTRAL MISSISSIPPI	20	107	59.7	.039	1	*0.03	1.86	93.9	86.3	90.1	9.5	1.36	89.1	89.1			
8 LOWER MISSISSIPPI	19	121	60.7	.044	0	-	2.54	93.9	86.8	90.4	9.0	1.37	91.0	91.0			
9 NORTH PLAINS	45	60.0	.050	0	-	2.06	92.7	85.7	89.2	89.0	9.5	1.32	90.1	90.1			
10 CENTRAL PLAINS	12	63	61.7	.045	1	-	1.63	92.6	85.3	89.0	8.7	1.39	91.1	91.1			
11 SOUTH PLAINS	20	135	61.4	.033	1	*0.00	2.31	93.0	86.3	89.7	8.9	1.38	92.1	92.1			
12 SOUTH TEXAS	15	88	60.8	.032	1	*0.04	2.35	93.8	86.6	90.2	8.9	1.38	93.1	93.1			
13 SOUTH MOUNTAIN STATES	16	232	60.0	.042	2	*0.00	92.4	85.2	88.5	9.2	1.42	96.1	96.1				
14 NORTH MOUNTAIN STATES	13	129	60.9	.050	1	*0.04	1.78	93.3	85.3	89.3	9.5	1.42	98.6	98.6			
15 PACIFIC NORTHWEST	9	59	61.1	.017	2	*0.00	2.08	93.0	86.6	89.8	10.1	1.33	90.1	90.1			
16 NORTH CALIFORNIA	11	72	58.7	.033	1	*0.01	1.53	93.6	85.2	89.4	8.7	1.41	95.1	95.1			
17 SOUTH CALIFORNIA	11	92	56.5	.046	1	*0.01	1.40	93.3	85.2	89.3	8.9	1.41	93.1	93.1			
AVERAGE	SUMMARY	60.3	.040	1	*0.004	2.01	93.5	86.1	89.8	9.3	1.36	91.108	121.142	163.211	265.342	378.417	1.0 1.6

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TABLE 4. - MOTOR GASOLINE SURVEY, SUMMER 1973
AVERAGE DATA FOR BRANDS IN EACH DISTRICT--CONTINUED

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES

THIRD-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	GR. ^a ASTM D287	SULF., ASTM D1266	GUM, ASTM D361	PHOS., ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	DISTILLATION, ASTM D86			DISTILLATION, F (CORRECTED TO 760 MM HG)			RES LOSS %									
							RES, ASTM D2700	R+M ASTM D2699	ASTM D323 LB	TEMPERATURE, F PERCENT EVAPORATED												
										IBP	5	10	20									
1 505	1 58.1	-	-	-	-	94.6	86.4	90.5	9.8	136	86	-	126	145	-	219	-	310	-	385	1.0	2.0
1 506	2 58.9	-	-	-	-	95.2	88.1	91.7	9.7	136	94	-	120	140	-	223	-	308	-	394	1.0	2.0
1 507	1 61.7	-	-	-	-	96.2	87.5	91.9	9.7	132	90	-	118	136	-	204	-	302	-	386	1.0	2.0
1 508	4 59.5	-	-	-	-	91.7	83.9	87.8	10.9	129	90	102	115	139	154	214	265	355	394	421	1.1	2.5
1 509	1 58.8	-	-	-	-	96.0	87.8	91.9	11.1	123	85	-	106	124	-	200	-	320	-	394	1.0	2.0
1 510	2 58.6	-	-	-	-	91.7	84.7	88.2	9.2	134	92	107	118	134	155	207	270	334	367	418	• 6	1.2
1 511	3 58.1	-	-	-	-	95	84.7	84.8	90.3	130	88	100	112	134	157	215	264	330	367	390	1.5	1.0
2 512	10 59.2	0.055	2	0.011	0.09	94.4	83.5	89.0	9.3	135	93	108	119	139	159	210	267	339	370	409	• 9	1.5
2 513	8 59.6	0.010	0	0.015	0.03	91.5	83.9	87.7	9.8	132	91	104	115	135	155	208	277	344	376	426	1.1	1.3
2 514	12 58.7	0.026	1	0.008	0.45	91.8	84.1	88.0	9.9	134	89	104	117	140	165	219	285	356	393	421	1.0	1.9
2 515	1 60.2	0.007	0	0.018	0.50	96.5	87.4	92.0	9.3	138	90	114	125	146	168	215	261	326	357	406	2.0	0
2 516	11 58.4	0.016	1	0.010	0.31	94.4	86.6	90.5	10.1	136	89	106	118	148	179	233	263	321	355	409	• 8	1.7
2 517	1 58.3	0.029	3	0.000	1.62	93.0	86.0	89.5	8.9	140	90	106	120	141	165	228	299	368	402	432	1.0	2.5
2 518	9 59.5	0.022	0	0.008	0.45	93.9	85.4	89.7	8.8	144	91	110	127	157	186	231	277	349	398	423	1.0	1.3
3 519	1 61.6	-	-	-	-	92.0	96.6	92.0	9.6	131	94	-	115	130	-	200	-	313	-	379	1.0	1.3
3 520	3 58.9	0.031	-	-	-	94.3	86.9	90.6	9.1	136	88	102	114	136	160	216	264	311	340	390	1.3	1.7
3 521	8 59.8	0.023	-	0.07	92.2	82.9	87.6	8.1	141	93	113	125	145	164	202	246	328	374	425	1.0	1.3	
3 522	9 57.8	0.024	-	0.02	94.9	84.0	89.5	9.4	135	91	108	116	137	161	213	273	339	371	404	• 9	2.0	
3 523	9 60.9	0.044	-	0.43	91.8	83.6	87.7	9.0	136	87	105	116	138	163	207	255	322	359	401	1.0	1.5	
3 524	1 57.0	-	-	-	-	92.0	96.6	92.0	9.6	131	94	-	115	130	-	200	-	313	-	379	1.0	1.5
3 525	6 60.7	0.016	-	-	-	94.0	85.3	89.7	9.0	136	88	104	119	148	176	224	263	321	360	419	1.0	1.8
4 526	3 57.1	0.023	2	0.012	0.02	94.0	83.6	88.8	9.6	134	86	104	116	136	157	214	275	344	375	409	• 6	1.4
4 527	7 59.4	0.031	4	0.014	0.05	91.5	83.9	87.7	9.8	133	90	105	117	137	158	210	272	343	378	419	1.1	1.2
4 528	15 60.0	0.031	3	0.006	0.44	91.2	84.0	87.6	9.6	136	90	107	121	143	168	217	269	336	367	404	• 9	1.6
4 529	8 59.1	0.011	2	0.023	0.04	91.6	83.6	87.6	9.0	136	89	107	120	143	167	216	267	339	378	417	1.1	1.2

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR. ^a ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER	RVP, ASTM D439 LB	DISTILLATION, ASTM D86														
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED											
									IBP	5	10	20	30	50									
4 530	14	58.7	.018	0	.013	.33	94.1	86.3	90.2	9.8	134	89	106	119	142	167	215	260	315	350	397	1.1	1.5
4 531	1	61.0	.019	3	.013	.04	91.0	83.0	87.0	7.9	144	93	115	126	144	161	212	268	335	381	401	1.2	.6
4 532	13	59.7	.029	2	.053	.03	92.3	83.6	88.0	9.8	137	90	107	121	147	173	221	262	321	354	397	1.6	
4 533	3	63.1	-	-	-	.37	93.9	86.4	90.2	10.5	132	86	103	117	145	174	220	262	328	366	421	.8	1.7
4 534	9	58.1	.022	2	.015	.51	93.5	85.1	89.3	10.0	137	87	104	120	149	180	230	272	325	351	382	.9	1.7
5 535	5	62.5	.048	2	.007	.01	91.6	82.9	87.3	10.9	127	83	97	109	131	156	207	245	312	346	390	.9	2.1
5 536	2	58.5	.053	-	-	.05	92.8	82.3	87.6	9.4	139	91	108	122	148	177	226	274	346	389	428	.9	2.1
5 537	6	59.5	.021	2	.006	.37	91.0	83.2	87.1	10.2	133	88	105	119	144	167	214	261	323	355	397	.9	1.6
5 538	6	60.6	.016	1	.021	.33	91.4	83.1	87.3	10.5	132	91	105	119	143	167	214	261	326	359	406	.6	1.6
5 539	5	59.5	.044	1	.007	.02	91.4	82.5	87.0	9.9	132	87	103	114	134	157	212	269	358	398	436	.9	1.3
5 540	5	62.2	.080	1	.004	.44	94.1	87.2	90.7	10.5	132	85	102	117	145	174	215	254	326	364	414	.9	2.1
5 541	5	59.9	.018	2	.049	.01	92.2	83.3	87.8	10.2	135	88	104	119	146	175	222	263	321	350	403	.9	1.6
5 542	1	61.0	.040	4	.000	1.98	92.3	85.2	88.8	9.9	132	90	106	120	138	158	204	272	359	397	436	.6	1.2
6 543	3	59.8	.033	-	-	.59	93.9	86.1	87.3	10.5	132	91	105	119	143	167	214	261	326	359	406	.6	1.2
6 544	4	67.6	.050	1	.29	.94.1	90.3	92.2	10.6	133	87	103	114	134	157	212	269	358	398	436	.9	2.1	
6 545	3	57.6	.032	-	-	.06	91.4	83.3	87.4	9.4	137	90	105	121	147	173	218	264	331	363	407	1.0	2.0
6 546	3	59.2	.039	1	.000	.01	92.4	82.8	87.6	9.5	122	94	111	124	137	163	201	248	309	373	406	.9	1.6
6 547	3	60.8	.055	-	-	.01	91.3	83.1	87.2	7.7	150	100	122	137	160	184	222	257	311	347	390	.7	1.3
7 548	6	64.1	.045	-	-	.01	91.3	82.8	87.1	11.3	125	86	99	110	133	157	204	241	312	360	390	.9	2.1
7 549	2	57.8	-	-	-	2.04	93.3	86.6	90.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
7 550	8	62.0	.050	-	-	.52	91.3	84.1	87.7	10.0	130	85	100	111	133	154	202	255	324	357	403	.8	1.7
7 551	6	57.0	.024	-	-	.05	91.9	83.9	87.9	8.6	142	89	108	121	147	171	219	267	326	358	405	.9	1.6
7 552	2	60.5	.021	-	-	.43	93.4	87.8	90.6	8.6	145	90	109	128	163	188	216	254	303	333	382	.7	2.3
7 553	3	63.8	.041	-	-	.05	91.3	83.9	87.6	8.2	140	92	111	123	142	161	199	242	331	370	426	1.0	1.5
7 554	3	60.5	.015	-	-	.45	93.6	85.7	89.7	11.7	127	80	93	107	137	173	231	277	325	346	385	.8	2.2

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM SAW- PLES NUMBERS	GR./ ASTM D287	SULF., ASTM D1266	GUM, ASTM D381	PHOS., ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	RVPI, ASTM D323	20V/L	DISTILLATION, ASTM D86 (CORRECTED TO 760 MM HG)						RES LOSS %							
									TEMPERATURE, F PERCENT EVAPORATED													
									IBP	5	10	20	30	50	70							
0 555	9 60.3	.024	-	-	-	91.3	84.7	88.0	9.1	136	88	108	117	138	158	209	253	329	352	404	1.0	1.5
0 556	1 57.0	-	-	-	-	96.4	86.9	91.7	7.8	143	81	-	117	138	-	214	-	330	-	409	1.0	1.0
0 557	7 60.0	.021	-	-	-	93.7	86.3	90.0	9.4	139	88	110	121	149	181	223	253	312	332	390	1.1	1.6
0 558	1 59.0	-	-	-	-	91.1	83.0	87.1	8.2	140	82	-	120	140	-	201	-	337	-	444	1.0	2.0
0 559	6 60.1	.031	-	-	-	92.8	83.7	88.3	8.8	138	84	110	119	140	166	209	266	335	372	410	0.9	1.6
0 560	4 59.2	.051	-	-	-	94.6	86.6	90.6	9.1	136	92	108	121	141	161	208	272	348	383	424	1.0	1.5
0 561	3 61.4	.043	-	-	-	92.7	85.1	88.9	9.4	137	86	106	121	149	174	212	246	319	352	402	0.9	1.1
0 562	3 68.9	.064	-	-	-	91.4	82.8	87.1	9.5	132	90	107	117	137	158	198	237	302	332	378	1.2	1.3
10 563	6 64.6	.040	-	-	-	91.7	83.5	87.6	9.4	135	92	107	119	141	163	207	237	287	321	357	0.8	1.8
10 564	7 61.1	.047	-	-	-	92.6	85.2	88.9	9.0	137	92	110	121	141	162	210	261	339	383	428	1.3	1.5
10 565	4 65.9	.020	1	-	-	92.4	89.1	90.8	8.8	143	91	105	129	157	184	216	241	314	372	406	1.3	1.5
11 566	6 60.9	.025	-	-	-	93.4	85.3	89.4	9.0	138	90	105	119	144	169	212	252	304	338	373	0.9	2.1
11 567	4 58.5	.020	1	-	-	94.2	87.1	90.7	8.7	144	95	113	126	151	177	230	267	308	348	394	1.0	1.0
11 568	3 62.5	-	-	-	-	91.5	83.6	87.6	7.9	142	94	109	122	141	161	207	254	326	373	414	0.7	1.3
11 569	6 60.5	.022	-	-	-	92.6	86.0	89.4	8.9	139	93	112	124	146	166	208	258	326	369	410	0.9	1.9
12 570	3 59.6	.021	2	-	-	91.1	84.1	87.9	8.0	144	100	117	129	146	165	211	251	334	362	409	1.0	1.3
12 571	4 60.2	.016	-	-	-	93.8	86.6	90.2	8.8	137	90	106	121	142	160	201	246	328	368	406	1.0	1.5
12 572	1 63.9	-	-	-	-	95.1	87.6	91.4	7.7	146	103	-	133	149	-	210	-	306	-	397	-	-
12 573	7 59.8	.015	-	-	-	92.2	84.5	88.4	9.1	137	94	108	121	140	160	209	259	327	359	411	1.1	1.2
12 574	2 61.6	.007	0	-	-	96.7	91.9	95.5	140	101	103	125	145	156	206	236	303	348	384	1.0	2.0	
12 575	5 56.6	.014	-	-	-	95.4	87.5	91.5	8.9	142	89	109	124	151	179	229	269	328	361	403	0.8	1.5
12 576	4 61.6	-	-	-	-	93.6	85.7	89.7	8.5	144	98	116	132	155	173	217	256	323	338	401	0.8	1.2
13 577	6 58.1	.060	2	-	-	92.6	85.1	88.9	8.5	143	91	109	125	147	170	222	273	344	375	426	0.9	1.7
13 578	3 54.6	-	-	-	-	94.4	84.7	89.6	8.0	145	93	114	127	149	173	221	262	343	378	430	0.6	1.4
13 579	9 55.9	.025	3	-	-	90.8	82.5	86.7	7.1	157	99	127	145	170	192	233	278	339	372	416	0.9	1.6

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT	ITEM NUMBERS	GR. ^a ASTM D287	SULF., ASTM D1266	GUM, ASTM D381	PHOS., ASTM D526	LEAD, ASTM D3231	OCTANE NUMBER	RVP, ASTM D439	DISTILLATION, ASTM D86			DISTILLATION, ASTM D86										
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			TEMPERATURE, F (CORRECTED TO 760 MM HG)										
									RES. ASTM D2699	MOT, ASTM D2700	R+M ASTM D2700	PERCENT EVAPORATED	PERCENT EVAPORATED	RES LOSS								
									LB	F	IBP	5	10	20	30	50	70	90	95	EP		
13	580	6	62.4	-	-	-	89.3	145	96	117	131	152	175	215	250	312	347	390	.7	1.3		
13	581	5	62.1	.026	-	-	86.7	136	88	105	118	143	172	215	256	331	368	412	.6	1.7		
13	582	2	58.2	-	-	-	87.5	146	94	116	128	148	168	217	261	319	342	402	.6	1.2		
13	583	12	61.2	.026	-	-	86.5	139	93	113	125	144	162	203	250	320	373	417	1.0	1.0		
13	584	3	69.3	-	-	-	87.3	125	85	103	114	134	153	194	232	322	362	402	1.6	1.6		
14	585	6	61.4	.050	1	0.00	92.3	85.1	86.7	9.1	137	93	111	122	142	161	206	255	331	367	417	1.7
14	586	3	64.3	.012	2	0.00	91.5	85.1	88.3	7.4	151	102	127	137	159	182	214	242	309	346	396	.9
15	587	1	57.6	-	-	-	92.0	84.3	88.2	-	-	-	-	-	-	-	-	-	-	-	-	
15	588	4	66.4	.007	1	0.00	91.0	86.9	89.0	10.2	126	85	109	120	136	153	187	231	292	316	361	415
15	589	3	67.7	.011	1	0.00	93.0	87.5	90.3	10.6	126	89	110	120	138	156	195	234	306	341	389	416
15	590	4	60.3	.012	1	0.01	91.9	82.6	87.3	7.9	144	97	119	130	149	167	207	246	320	355	412	481
16	591	4	55.4	.028	-	0.00	69	95.3	85.5	90.4	8.9	142	95	115	128	152	176	223	246	342	363	408
16	592	5	60.3	.014	1	0.01	91.9	82.9	87.4	8.0	144	100	121	131	149	165	203	243	307	347	406	.9
16	593	4	61.0	.010	-	0.00	94.2	86.4	90.3	9.2	136	96	115	126	144	162	203	244	319	351	406	1.1
16	594	5	58.7	.035	1	0.00	91.0	85.1	88.1	8.9	143	96	116	131	155	177	222	271	328	353	396	410
16	595	3	58.0	-	-	-	82.6	84.2	88.4	8.3	142	92	114	127	147	167	213	263	320	345	392	.7
17	596	4	56.9	.010	0	0.04	92.3	84.4	88.4	7.9	148	100	117	132	153	170	225	269	322	349	399	412
17	597	5	56.8	.088	1	0.00	91.6	82.9	87.3	9.1	139	90	110	120	145	169	219	275	344	373	423	.9
17	598	2	60.0	-	-	-	96.2	86.8	91.5	8.8	141	100	-	-	-	-	-	-	-	-	-	-
17	599	6	56.4	.069	0	-	94.3	84.8	89.6	8.5	144	96	111	129	154	174	224	273	345	382	422	491
17	600	10	60.1	.043	1	0.01	92.4	83.6	88.0	8.5	139	97	114	125	141	163	202	255	317	334	390	1.0
17	601	8	53.9	.007	1	0.01	92.3	83.6	88.0	8.4	146	95	113	130	157	185	228	264	321	337	387	491
17	602	1	63.2	-	-	-	93.7	86.5	90.1	9.8	133	96	-	-	-	-	-	-	-	-	-	-
AVERAGE		60.2	.030	1	.008	.49	92.9	85.0	89.0	9.2	137	91	109	122	144	168	213	260	326	361	405	491

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

INTERMEDIATE-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	GR. S ASTM D287 API	SULF. ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D2700	R+M ASTM D2700	RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86						RES LOSS %					
										TEMPERATURE, F (CORRECTED TO 760 MM HG)											
										IBP	5	10	20	30	50	70					
1 603	3 61.5	-	-	-	0.55	96.1	87.6	91.9	10.4	128	88	97	107	127	152	210	252	321	349	386	1.5
1 604	3 60.6	-	-	-	.47	96.0	87.3	91.7	8.8	137	90	104	116	139	160	207	241	320	346	386	1.3
1 605	1 59.5	0.005	2	0.001	.01	91.2	84.0	87.6	10.7	127	88	102	114	130	149	204	273	343	367	421	1.7
2 606	14 58.3	.024	1	.001	.49	96.2	86.9	91.6	10.2	133	88	103	115	138	164	218	260	327	361	410	3.0
2 607	10 61.2	.009	0	.000	.46	96.2	86.9	91.6	9.4	135	95	109	120	140	162	209	250	312	348	390	1.5
2 608	2 55.4	.008	0	.001	.07	94.4	85.2	89.8	10.3	133	90	109	122	143	165	216	273	325	349	405	1.5
2 609	1 59.0	.020	0	.001	.60	91.0	83.4	87.2	10.1	133	86	100	116	141	166	218	286	352	384	424	1.0
2 610	2 55.0	.022	1	.001	.44	94.0	84.3	89.2	8.9	147	93	110	129	163	195	242	282	346	376	422	2.3
3 611	3 60.9	.037	-	-	2.38	96.3	88.5	92.4	9.5	135	92	109	122	141	161	206	257	339	377	412	5
3 612	9 60.7	.012	-	-	.46	96.2	87.0	91.6	9.4	135	90	106	118	138	159	208	249	310	341	383	1.0
3 613	9 57.3	.026	-	-	.51	96.2	87.0	91.6	10.2	132	87	97	113	138	165	225	264	329	361	405	1.6
4 614	11 59.4	.027	1	.013	.49	96.1	87.2	91.7	10.0	133	88	102	115	139	167	218	260	328	359	403	1.5
4 615	11 61.8	.032	2	.026	.52	96.4	86.9	91.7	9.2	134	90	105	117	137	159	204	248	316	362	409	1.5
5 616	5 62.0	.026	1	.014	.53	96.6	87.3	92.0	9.5	135	90	108	121	142	164	205	246	316	358	407	1.4
6 617	1 59.8	.009	4	.001	.01	92.0	83.4	87.7	9.3	135	93	104	120	141	164	206	245	307	370	370	4.0
6 618	4 62.6	.018	0	.000	.42	96.5	86.8	91.7	9.5	134	89	109	120	140	160	201	240	319	363	414	1.3
6 619	1 65.4	.001	0	.000	.01	94.8	90.2	92.5	8.9	147	95	122	139	173	195	220	250	321	358	419	2.0
6 620	1 60.6	.003	1	.000	.33	94.1	87.0	90.6	9.0	137	91	108	120	146	172	204	230	300	358	400	3.0
7 621	1 62.3	.003	0	.002	.44	93.3	87.8	90.6	9.4	139	94	111	121	151	180	227	262	318	368	376	3.0
7 622	6 62.1	.031	-	.43	.43	96.6	87.0	91.8	9.3	134	90	105	118	139	159	201	239	305	358	404	1.7

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973.
DATA FOR SOME ADDITIONAL GRADES - CONTINUED

INTERMEDIATE-GRADE GASOLINE--CONTINUED

DISTRICT	ITEM NUMBERS	GR., SULF., ASTM D287 API	GUM, ASTM D1266 HT X	PHOS., ASTM D381 HT X	LEAD, ASTM D526 MG	OCTANE NUMBER	RVP, ASTM D439 LB	DISTILLATION, ASTM D86						RES LOSS %									
								TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED												
								IBP	5	10	20	30	50	70									
7	623	3	60.1	.013	2	•011	84.7	88.9	10.0	13.4	95	111	120	144	167	212	255	323	384	409	1.0	2.2	
7	624	3	57.4	.037	—	•45	93.1	91.8	10.0	13.3	84	97	109	137	168	224	262	320	355	408	•6	1.9	
8	625	9	57.0	.025	—	•51	96.2	87.3	91.7	9.3	137	88	102	115	139	171	229	268	328	361	405	1.1	1.6
8	626	6	61.3	.011	—	—	96.1	67.3	91.8	9.3	134	91	106	119	159	205	246	304	335	365	•9	1.6	
9	627	3	62.7	.038	—	•48	96.3	87.3	91.8	9.3	134	92	103	115	136	156	198	235	315	371	408	•9	2.1
10	628	3	63.0	—	—	•37	96.6	87.3	92.0	9.1	134	86	99	109	135	157	199	239	307	347	404	1.0	•5
11	629	3	59.0	—	—	•42	96.1	67.0	91.6	8.9	134	90	107	123	150	179	222	254	316	350	394	•6	1.9
11	630	3	61.2	—	—	•42	95.7	67.2	91.5	8.9	141	92	111	122	139	157	197	237	292	346	398	•8	1.2
12	631	7	58.3	.013	0	•005	95.8	86.9	91.4	9.1	135	93	109	120	143	170	215	261	322	352	411	•8	2.2
12	632	3	61.0	—	—	•51	95.6	87.5	91.6	8.4	141	93	107	120	139	162	206	241	305	329	382	•8	1.7
13	633	3	64.8	—	—	•46	96.0	87.1	91.6	8.4	139	90	107	120	139	164	204	245	325	370	416	•6	1.2
13	634	7	65.4	.020	4	•000	94.3	89.2	91.8	7.9	144	100	120	132	148	164	204	245	305	345	394	•8	1.0
14	635	8	64.2	.015	0	•000	95.3	87.0	90.4	7.7	144	103	122	132	148	164	199	229	283	325	379	•9	1.8
14	636	1	65.0	—	—	•001	96.5	89.8	93.2	7.7	146	98	120	129	147	170	212	251	333	389	419	1.0	1.0
15	637	5	65.8	.008	3	•001	95.4	87.1	91.3	9.3	134	90	110	122	142	161	198	229	292	332	386	•9	1.1
15	638	1	68.9	.003	1	•001	1.12	93.0	88.2	90.6	8.5	135	92	105	118	134	151	191	228	324	375	1.0	3.0
15	639	1	61.5	.005	3	•001	93.0	87.1	90.5	8.7	143	88	112	126	152	179	228	264	319	336	401	•5	1.0
16	640	5	61.3	.009	1	•000	96.1	86.8	91.5	8.5	140	98	121	132	149	166	202	239	313	346	398	•9	1.6
16	641	4	57.1	.014	1	•002	96.5	87.6	92.1	9.2	142	92	113	131	159	184	226	270	334	359	401	•9	1.8
17	642	4	58.5	.028	—	2.47	95.5	87.8	91.7	9.2	139	91	109	124	147	172	219	263	341	380	419	•9	1.7
17	643	5	59.2	.029	1	•000	96.2	86.6	91.4	8.7	139	94	112	125	145	164	205	245	305	331	390	•9	1.0
AVERAGE SAMPLES		60.9	.019	1	•003	95.2	86.9	91.1	9.2	137	91	108	121	143	166	211	251	318	355	400	•9	1.8	

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1973
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

SUPER-PREMIUM GASOLINE

DISTRICT AND ITEM NUMBERS	SAMPLES	DISTILLATION, ASTM D86																					
		GUM, ASTM				LEAD, ASTM				OCTANE NUMBER													
		GR. ^o	SULF, ASTM	GR. ^o	SULF, ASTM	RES, ASTM	MOT, ASTM	R+M ASTM	D439	TEMPERATURE, F (CORRECTED TO 760 MM HG)	20V/L	ASTM	D439										
2 644	1	60.2	0.017	0	0.000	3.07	101.2	94.1	97.7	9.7	136	89	100	116	141	17.0	228	261	312	345	392	0.5	3.0
4 645	2	59.4	.002	2	.002	2.82	101.6	94.4	98.0	9.9	134	69	107	119	139	162	214	250	301	322	363	1.0	2.0
5 646	2	60.6	.002	2	.001	2.80	101.3	94.0	97.7	10.0	133	67	105	119	140	163	216	252	304	329	366	.6	1.8
AVERAGE		60.1	.007	1	.001	2.90	101.4	94.2	97.8	9.9	134	68	104	118	140	165	219	254	306	332	374	.8	2.3

TABLE 6. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF LOW-LEAD CONTENT GASOLINE

DISTRICT	GRADE	SAMPLES	GR. ^a	SULF. ^b	GUM, ^c	PHOS.	LEAD, ^d	OCTANE NUMBER	DISTILLATION, ASTM D86						RES. LOSS %		
									TEMPERATURE, F (CORRECTED TO 76.0 MM HG)			PERCENT EVAPORATED					
									RVP, ASTM D323 LB	ASTM D439 F	IBP D2700 2	5	10	20	30		
1	THIRD GRADE	1	57.6	-	-	-	.08	95.7	85.3	90.5	-	-	-	-	-	-	
1	THIRD GRADE	2	59.2	-	-	-	.42	91.6	84.1	87.9	-	-	-	-	-	-	
1	THIRD GRADE	1	61.7	-	-	-	.45	96.2	87.5	91.9	9.7	132	90	118	136	204	
1	THIRD GRADE	1	58.4	-	-	-	.32	95.6	88.2	91.9	9.7	136	94	120	140	223	
1	THIRD GRADE	1	58.1	-	-	-	.31	94.6	86.4	90.5	9.8	136	86	126	145	219	
1	INTERMEDIATE	1	61.2	-	-	-	.47	95.7	87.6	91.7	10.4	128	88	97	107	127	
1	INTERMEDIATE	3	60.6	-	-	-	.47	96.0	87.3	91.7	8.8	137	90	104	116	139	
2	THIRD GRADE	1	59.3	.002	0	.029	.10	91.0	83.7	87.4	9.5	135	88	108	119	139	
2	THIRD GRADE	8	58.2	.024	-	.37	91.9	84.4	88.2	9.8	134	88	103	115	140	167	
2	THIRD GRADE	1	60.2	.007	0	.018	.50	96.5	87.4	92.0	9.3	138	90	114	125	146	
2	THIRD GRADE	8	58.5	.018	1	.010	.28	94.3	87.0	90.7	10.0	136	89	106	116	144	
2	THIRD GRADE	8	59.0	.022	0	.008	.42	93.9	85.3	89.6	8.8	144	91	110	127	157	
2	REGULAR	1	60.3	-	-	-	.50	95.3	87.1	91.2	-	-	-	-	-	-	
2	INTERMEDIATE	9	57.3	.022	1	.001	.45	96.3	86.8	91.6	10.1	134	87	105	117	141	
2	INTERMEDIATE	7	61.4	.011	0	.000	.43	96.1	86.9	91.5	9.5	133	96	109	119	137	
2	INTERMEDIATE	5	56.8	.010	0	.001	.08	94.6	85.0	89.8	10.1	132	87	110	121	138	
2	INTERMEDIATE	2	55.0	.022	1	.001	.44	94.0	84.3	89.2	8.9	147	93	110	129	163	
3	THIRD GRADE	7	60.9	.049	-	.39	91.7	83.5	87.6	9.0	135	87	107	115	136	162	
3	THIRD GRADE	1	61.6	-	-	-	.20	96.4	87.6	92.0	9.6	131	94	115	130	200	
3	THIRD GRADE	3	58.9	.031	-	.36	94.3	86.9	90.6	9.1	136	88	102	114	136	160	
3	THIRD GRADE	4	58.6	-	-	.09	92.3	83.6	88.0	7.9	142	92	112	125	144	161	
3	THIRD GRADE	6	60.7	.018	-	.41	94.0	85.3	89.7	9.0	140	88	104	119	148	176	
3	INTERMEDIATE	6	57.2	.030	7	.012	.45	96.1	86.8	91.5	10.2	132	87	97	113	138	165
3	INTERMEDIATE	3	60.8	-	-	.43	96.2	86.9	91.6	9.4	135	91	107	120	140	161	

TABLE 6. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	GRADE	SAMPLES	GR.° API	SULF. WT %	GUM, MG	PHOS. G/GAL	LEAD, ASTM D526	RES., ASTM D2699	OCTANE NUMBER	DISTILLATION, ASTM D86						RES. LOSS %								
										TEMPERATURE, F (CORRECTED TO 760 MM HG)														
										IBP	5	10	20	30	50	70								
4	THIRD GRADE	1	60.2	-	-	-	1.2	91.6	85.3	80.5	-	-	-	-	-	-	-							
4	THIRD GRADE	10	60.0	.037	4	.013	.39	91.1	84.2	87.7	10.0	134	.90	105	119	142	168	215	267	335	366	406	1.0	1.4
4	THIRD GRADE	8	59.5	.020	0	.015	.42	93.9	86.9	90.4	9.9	135	.89	108	120	145	171	218	258	310	348	387	1.1	1.4
4	THIRD GRADE	1	60.3	.045	-	-	1.4	92.6	84.7	88.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	THIRD GRADE	3	63.1	-	-	-	.37	93.9	86.4	90.2	10.5	132	.86	103	117	145	174	220	262	328	366	421	.8	1.7
4	THIRD GRADE	5	58.1	.021	2	.012	.46	93.4	84.6	89.1	9.9	138	.89	104	120	151	181	232	273	327	353	383	.8	1.9
4	INTERMEDIATE	7	59.3	.026	2	.014	.45	96.2	87.3	91.8	10.6	131	.89	102	113	137	167	222	259	314	344	388	1.1	1.5
4	INTERMEDIATE	4	62.4	.029	-	.43	96.4	86.7	91.6	9.0	135	.89	105	116	137	160	204	244	312	378	410	.8	1.7	
5	THIRD GRADE	6	59.5	.021	2	.006	.37	91.0	83.0	87.1	10.2	133	.88	105	119	144	167	214	261	323	355	397	.9	1.6
5	THIRD GRADE	6	60.6	.016	1	.021	.33	91.4	83.1	87.3	10.5	132	.91	105	119	143	167	214	261	326	359	406	.6	1.4
5	THIRD GRADE	3	62.0	.088	1	.004	.38	94.2	87.2	90.7	10.7	131	.84	100	115	143	172	215	257	332	370	419	.9	2.4
5	INTERMEDIATE	3	62.3	.025	0	.008	.42	96.7	87.4	92.1	9.8	132	.91	106	120	141	161	199	240	307	347	406	1.0	2.0
6	THIRD GRADE	4	67.6	.050	1	-	.29	94.1	90.3	92.2	10.6	133	.86	113	120	153	187	214	240	310	358	402	1.4	2.2
6	THIRD GRADE	1	60.9	-	-	.48	93.5	86.8	90.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	INTERMEDIATE	3	62.3	.018	0	.000	.37	96.7	86.9	91.8	9.5	134	.89	109	120	140	160	201	240	319	363	414	1.0	1.3
6	INTERMEDIATE	1	60.6	.003	1	.000	.33	94.1	87.0	90.6	9.0	137	.91	108	120	146	172	204	232	279	300	358	1.0	3.0
7	THIRD GRADE	4	61.1	.033	-	-	.45	91.3	84.4	87.9	8.9	137	.88	106	118	141	164	211	264	331	362	400	1.0	1.5
7	THIRD GRADE	1	57.6	-	.021	-	.08	91.7	84.6	88.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	THIRD GRADE	2	60.5	.021	-	.43	93.4	87.8	90.6	8.6	145	.90	109	128	163	186	216	254	303	333	382	.7	2.3	
7	THIRD GRADE	1	64.7	.041	-	.11	91.4	84.2	87.8	-	-	-	-	-	-	-	-	-	-	-	-	-		
7	THIRD GRADE	2	60.4	.015	-	.42	93.8	85.7	89.8	11.7	127	.80	93	107	137	173	231	277	325	346	385	.8	2.2	
7	INTERMEDIATE	2	57.9	.037	-	.43	96.2	87.3	91.8	10.0	133	.84	97	109	137	168	224	262	320	355	408	.6	1.9	
7	INTERMEDIATE	1	62.3	.021	4	.002	.41	96.0	87.4	91.7	9.6	134	.96	112	141	160	202	236	310	382	418	1.0	2.0	
7	INTERMEDIATE	6	62.1	.031	-	.43	96.6	87.0	91.8	9.3	134	.90	105	118	139	159	201	239	305	358	404	.8	1.7	
7	INTERMEDIATE	1	62.3	.003	0	.002	.44	93.3	87.8	90.6	9.4	139	.94	111	121	151	180	227	262	318	366	376	1.0	3.0

TABLE 6. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF LOW-LEAD Content GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR. ASTM D287	SULF, ASTM D1266	PHOS. ASTM D3231	LEAD, ASTM D526	OCTANE NUMBER	DISTILLATION, ASTM D86						RES X	LOSS %								
								RES, ASTM D2699	MOT, ASTM D2700	R+M --- D2700	TEMPERATURE, F (CORRECTED TO 760 MM HG)												
											RVP, ASTM D439	LB F	IBP F	5 10 20 30	50 70 90 95	EP							
6	THIRD GRADE	7	59.8	.026	-	-	91.3	84.6	88.1	9.2	135	87	109	116	137	157	210	253	330	347	402	1.1	1.4
6	THIRD GRADE	6	59.8	.021	-	-	93.7	86.1	89.9	9.4	139	88	110	121	149	181	223	253	312	332	390	1.1	1.6
6	REGULAR	2	56.1	.024	-	-	94.0	85.9	90.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	INTERMEDIATE	5	56.7	.025	-	-	96.0	87.3	91.7	9.2	138	89	103	116	140	173	230	264	324	361	403	1.2	1.4
6	INTERMEDIATE	5	61.7	.011	-	-	96.2	87.5	91.9	9.4	134	92	106	117	137	157	205	249	309	337	386	.8	1.5
9	INTERMEDIATE	3	62.7	.038	-	-	96.6	87.3	92.0	9.1	134	92	103	115	136	156	198	235	315	371	408	.9	2.1
10	THIRD GRADE	3	66.3	.020	1	-	92.4	89.8	91.1	8.8	143	91	105	129	157	164	216	241	314	372	406	1.3	1.5
10	INTERMEDIATE	2	63.6	-	-	.33	96.2	87.0	91.6	8.9	134	86	99	109	135	157	199	239	307	347	404	1.0	.5
11	THIRD GRADE	3	62.5	-	-	-	91.5	83.6	87.6	7.9	142	94	109	122	141	161	207	254	326	373	414	.7	1.3
11	THIRD GRADE	4	58.5	.020	1	-	94.2	87.1	90.7	8.7	144	95	113	126	151	177	230	267	308	348	394	1.0	1.0
11	THIRD GRADE	6	60.9	.025	-	-	93.4	85.3	89.4	9.0	138	90	105	119	144	169	212	252	304	336	373	.9	2.1
11	INTERMEDIATE	3	59.0	-	-	-	95.7	87.2	91.5	8.9	141	90	107	123	150	179	222	254	318	350	394	.6	1.9
11	INTERMEDIATE	3	61.2	-	-	-	95.8	86.9	91.4	9.1	135	92	111	122	139	157	197	237	292	346	398	.8	1.2
12	THIRD GRADE	1	63.9	-	-	-	95.1	87.6	91.4	7.7	146	103	-	133	149	-	210	-	306	-	397	-	-
12	THIRD GRADE	6	59.5	.015	-	-	92.0	84.5	88.3	8.8	138	91	108	120	140	160	209	259	325	359	409	1.1	1.2
12	THIRD GRADE	1	63.2	-	-	-	95.5	87.3	91.4	8.0	145	107	-	133	151	-	212	-	306	-	379	-	
12	THIRD GRADE	5	56.6	.014	-	-	95.4	87.5	91.5	8.9	142	89	109	124	151	179	229	269	326	361	403	.8	1.5
12	THIRD GRADE	4	61.6	-	-	-	93.6	85.7	89.7	8.5	144	98	116	132	155	173	217	256	323	338	401	.8	1.2
12	INTERMEDIATE	4	57.0	.016	-	-	95.8	87.3	91.6	9.1	138	88	101	115	145	175	223	266	324	358	404	.6	2.4
12	INTERMEDIATE	3	61.0	-	-	-	96.0	87.1	91.6	8.4	139	90	107	120	139	162	206	241	305	329	362	.8	1.7
13	THIRD GRADE	3	54.6	-	-	-	94.4	84.7	89.6	8.0	145	93	114	127	149	173	221	262	343	378	430	.6	1.4
13	THIRD GRADE	4	61.5	-	-	-	92.9	85.4	89.2	9.0	140	90	113	127	147	171	217	257	319	347	392	.6	1.4
13	REGULAR	1	58.0	.046	-	-	93.2	84.2	88.7	9.0	143	95	118	134	156	176	225	273	328	361	406	1.4	.6
13	INTERMEDIATE	7	65.4	.020	4	.000	94.6	86.2	90.4	7.7	144	103	122	132	148	164	199	229	325	379	.8	1.0	

TABLE 6. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR. ^a ASTM D267 API	SULF. ^b ASTM D1266 WT %	GUM, ^c ASTM D361 MG	PHOS. ^d ASTM D3231 G/GAL	LEAD, ^e ASTM D526 G/GAL	OCTANE NUMBER	DISTILLATION, ASTM D86						RES LOSS % X	
									TEMPERATURE, F			20V/L				
									ASTM D439 F	ASTM D439 LB	ASTM D439 F	20V/L	ASTM D439 F	ASTM D439 LB		
14	THIRD GRADE	1	62.9	.010	2	.000	.009	91.9	85.1	88.5	6.8	153	110	126	397	
14	REGULAR	2	64.7	.015	1	=	.042	95.1	86.8	91.0	10.9	122	72	137	316	
14	INTERMEDIATE	7	64.2	.015	0	.000	.041	95.3	87.0	91.2	9.7	133	69	107	343	
15	THIRD GRADE	2	67.7	.015	1	.000	.39	93.2	87.8	90.5	10.7	128	91	114	245	
15	INTERMEDIATE	4	65.2	.009	1	.000	.37	95.4	87.0	91.2	9.4	135	92	113	316	
16	THIRD GRADE	2	60.1	=	=	.38	.010	93.0	85.8	89.8	=	=	94	111	235	
16	REGULAR	1	66.3	.010	1	.049	.001	93.7	88.0	90.9	9.2	135	93	111	160	
16	REGULAR	4	60.5	.010	1	.043	.001	93.5	85.4	89.5	8.5	141	93	111	199	
16	REGULAR	4	57.7	.010	1	.000	.46	93.2	85.9	89.6	8.7	141	97	117	227	
16	INTERMEDIATE	4	57.1	.014	1	.002	.44	96.5	87.6	92.1	9.2	142	92	113	147	
16	INTERMEDIATE	5	61.3	.009	1	.000	.40	96.1	86.8	91.5	8.5	140	98	121	165	
17	THIRD GRADE	4	56.8	.088	1	.000	.42	91.6	82.8	87.2	9.1	139	91	110	245	
17	THIRD GRADE	2	60.0	=	=	.43	.000	96.2	86.8	91.5	8.8	141	100	=	169	
17	THIRD GRADE	4	56.6	.090	0	=	.36	94.3	84.7	89.5	8.5	146	101	=	176	
17	THIRD GRADE	4	60.3	.039	0	.001	.32	93.0	84.0	88.5	8.7	138	99	118	172	
17	THIRD GRADE	1	63.2	=	=	.48	.000	93.7	86.5	90.1	9.8	133	96	=	177	
17	REGULAR	2	55.3	=	=	.45	.000	92.0	82.5	87.3	=	=	100	=	182	
17	REGULAR	1	53.3	.050	2	.001	.44	94.6	84.6	89.6	7.5	155	100	125	297	
17	REGULAR	6	60.7	.057	2	.000	.43	93.5	84.5	89.0	9.3	136	92	111	192	
17	REGULAR	3	55.8	.010	0	.001	.47	94.2	84.8	89.5	8.7	142	90	110	226	
17	REGULAR	4	58.5	.007	=	.47	93.2	85.3	89.3	10.0	134	86	105	117		
17	INTERMEDIATE	2	59.4	=	=	=	=	96.5	86.6	91.6	=	=	=	=	=	

TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF UNLEADED GASOLINE

DISTRICT	GRADE	SAMPLES	GR.° API	SULF, WT %	GUM, ASTM D287	PHOS, ASTM D381	LEAD, ASTM D231	OCTANE NUMBER	DISTILLATION, ASTM D86						RES LOSS %									
									TEMPERATURE, F (CORRECTED TO 760 MM HG)			PERCENT EVAPORATED												
									IBP	5	10	20	30	50	70									
1	THIRD GRADE	2	58.3	"	"	"	0.04	95.8	84.6	10.3	130	88	100	112	134	215	264	330	367	390	1.5	1.0		
1	THIRD GRADE	2	58.6	"	"	"	0.03	91.7	84.7	9.2	134	92	107	118	134	207	270	334	367	410	.6	1.2		
1	PREMIUM	3	50.7	"	"	"	0.05	100.8	90.6	9.7	134	88	97	111	136	181	246	276	339	391	412	1.8	1.2	
2	THIRD GRADE	9	59.2	0.044	2	0.021	.03	94.3	83.3	88.8	9.5	134	92	108	119	139	209	266	340	372	412	1.1	1.1	
2	THIRD GRADE	7	59.6	0.014	0	0.000	.02	91.6	83.9	87.8	9.8	131	92	103	114	133	152	205	274	340	369	421	1.0	1.5
2	THIRD GRADE	2	57.0	0.010	1	-	.002	94.6	84.9	89.8	10.7	138	88	-	127	163	193	243	-	337	-	431	1.0	3.0
2	INTERMEDIATE	1	59.5	0.005	2	.001	.01	91.2	84.0	87.6	10.7	127	88	102	114	130	149	204	273	343	367	421	1.0	3.0
2	INTERMEDIATE	1	53.9	0.007	0	.000	.06	94.2	85.3	89.8	10.4	134	92	107	122	148	172	225	280	330	352	411	5	3.0
2	PREMIUM	13	52.5	.012	1	.006	.02	100.9	90.3	95.6	9.9	137	88	104	116	144	181	238	270	332	362	408	.9	1.9
3	THIRD GRADE	9	57.8	.024	"	"	.02	94.9	84.0	89.5	9.4	135	91	108	116	137	161	213	273	339	371	404	.9	2.0
3	THIRD GRADE	4	61.0	.023	"	"	.04	92.1	82.3	87.2	8.3	141	93	113	125	145	165	202	248	330	372	424	1.0	1.3
3	THIRD GRADE	1	57.0	.020	"	"	.00	91.5	82.7	87.1	9.8	136	96	-	123	150	171	214	-	330	-	411	1.0	2.0
3	PREMIUM	9	52.7	.020	"	"	.01	101.0	90.7	95.9	9.7	137	88	102	115	143	177	234	264	326	350	398	.9	1.6
4	THIRD GRADE	3	57.1	.023	2	.012	.02	94.0	83.6	88.8	9.6	134	86	104	116	136	157	214	275	344	375	409	.6	1.4
4	THIRD GRADE	6	59.3	.031	4	.014	.04	91.5	83.7	87.6	9.8	133	90	105	117	158	210	272	343	378	419	1.1	1.2	
4	THIRD GRADE	6	59.1	.011	2	.023	.04	91.6	83.6	87.6	9.0	138	89	107	120	143	167	216	267	339	378	417	1.1	1.2
4	THIRD GRADE	4	55.1	.013	0	.011	.03	94.5	84.9	89.7	9.3	136	91	109	121	140	162	215	273	326	349	406	1.0	1.8
4	THIRD GRADE	1	61.0	.019	3	.013	.04	91.0	83.0	87.0	7.9	144	93	115	126	144	161	212	268	335	361	401	1.2	8
4	THIRD GRADE	12	59.7	.026	2	.053	.02	92.3	83.5	87.9	9.8	137	90	107	121	147	173	221	262	321	354	397	1.1	1.6
4	PREMIUM	6	54.4	.007	0	.001	.04	101.0	90.7	95.9	10.5	133	84	99	112	141	180	234	263	325	353	390	.8	2.2
5	THIRD GRADE	5	62.5	.048	2	.007	.01	91.6	82.9	87.3	10.9	127	83	97	109	131	156	207	245	312	348	390	.9	2.1
5	THIRD GRADE	2	58.5	.053	"	.005	.02	92.8	82.3	87.6	9.4	139	91	108	122	148	177	226	274	346	389	428	.9	2.1
5	THIRD GRADE	5	59.5	.044	1	.007	.02	91.4	82.5	87.0	9.9	132	87	103	114	134	157	212	269	358	398	436	.9	1.3
5	THIRD GRADE	5	59.9	.018	2	.049	.01	92.2	83.3	87.8	10.2	135	88	104	119	146	175	222	263	321	350	403	.9	1.6
6	THIRD GRADE	3	60.8	.055	"	-	.01	91.3	83.1	87.2	7.7	150	100	122	137	160	184	222	257	311	347	390	.7	1.3
6	THIRD GRADE	3	59.2	.039	1	.000	.01	92.4	82.8	87.6	9.5	122	94	111	124	137	163	201	248	309	373	406	.9	1.6
6	THIRD GRADE	3	57.6	.032	"	.006	.01	91.4	83.3	87.4	9.4	137	90	105	121	147	173	218	264	331	363	407	1.0	2.0
6	INTERMEDIATE	1	59.8	.009	4	.001	.01	92.0	83.4	87.7	9.3	135	93	104	120	141	164	206	245	307	370	370	1.0	4.0
6	INTERMEDIATE	1	65.4	.001	0	.000	.01	94.8	90.2	92.5	8.9	147	95	122	139	173	195	220	250	321	358	419	1.0	2.0

TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1973
ANALYSES OF UNLEADED GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR.-% API	SULF., ASTM D287 WT %	GUM, ASTM D1266 MG	PHOS., ASTM D301 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D2700 2	RVP, ASTM D439 LB	DISTILLATION, ASTM D86						TEMPERATURE, °F CORRECTED TO 760 MM HG							
										PERCENT EVAPORATED													
										IBP	5	10	20	30	50	70	90	95					
7	THIRD GRADE	6	64.1	.045	-	-	.01	91.3	62.8	11.3	125	86	99	110	133	157	204	241	312	360	390	.9 2.1	
7	THIRD GRADE	5	56.8	.024	-	-	.04	91.9	83.7	87.7	142	89	108	121	147	171	219	267	326	358	405	.9 1.6	
7	THIRD GRADE	2	63.3	-	-	-	.03	91.3	83.8	87.6	140	92	111	123	142	161	199	242	331	370	426	1.0 0.0	
7	INTERMEDIATE	2	59.0	.010	2	.016	.05	91.7	83.4	87.6	10.2	94	111	120	145	170	218	265	330	385	404	1.0 2.3	
8	THIRD GRADE	6	60.1	.031	-	-	.02	92.8	83.7	88.3	138	84	110	119	140	166	209	266	335	372	410	.9 1.6	
8	THIRD GRADE	1	59.0	-	-	-	.05	91.1	83.0	87.1	140	82	-	120	140	-	201	-	337	-	444	1.0 2.0	
8	PREMIUM	9	53.1	.015	-	-	.02	101.0	90.8	95.9	9.7	136	86	99	114	141	177	235	279	335	356	397	.9 1.8
9	THIRD GRADE	3	68.9	.064	-	-	.01	91.4	82.8	87.1	9.5	132	90	107	117	137	158	198	237	302	332	378	1.2 1.3
10	THIRD GRADE	6	64.6	.040	-	-	.01	91.7	83.5	87.6	9.4	135	92	107	119	141	163	207	237	267	321	357	.8 1.6
12	THIRD GRADE	3	59.6	.021	2	.011	.01	91.6	84.1	87.9	8.0	144	100	117	129	146	165	211	251	334	362	409	1.0 1.3
13	THIRD GRADE	5	62.1	.026	-	-	.00	91.1	82.3	86.7	9.4	136	88	105	118	143	172	215	256	331	368	412	.8 1.7
13	THIRD GRADE	2	58.2	-	-	-	.01	91.5	83.5	87.5	7.8	146	94	116	128	148	168	217	261	319	342	402	.8 1.2
13	THIRD GRADE	9	55.9	.025	3	.000	.02	90.8	82.5	86.7	7.1	157	99	127	145	170	192	233	278	339	372	416	.9 1.8
14	THIRD GRADE	3	69.3	-	-	-	.00	91.6	83.0	87.3	11.1	125	85	103	114	134	153	194	227	282	322	382	.7 1.8
14	THIRD GRADE	2	65.0	.013	-	-	.02	91.4	85.2	88.3	8.0	148	93	125	136	162	187	215	239	301	342	395	.8 .7
15	THIRD GRADE	4	57.6	-	-	-	.01	92.0	84.3	88.2	-	-	-	-	-	-	-	-	-	-	-		
15	THIRD GRADE	4	60.3	.012	4	.001	.02	91.9	82.6	87.3	7.9	144	97	119	130	149	167	207	246	320	355	412	.8 1.2
16	THIRD GRADE	3	58.0	-	-	-	.02	92.6	84.2	88.4	8.3	142	92	114	127	147	167	213	263	320	345	392	.7 1.3
16	THIRD GRADE	5	60.3	.014	1	.001	.02	91.9	82.9	87.4	8.0	144	100	121	131	149	165	203	243	307	347	406	.9 .9
17	THIRD GRADE	3	57.7	.010	0	.004	.02	92.4	84.3	88.4	8.3	144	96	117	129	150	170	219	269	322	349	399	1.2 .9
17	THIRD GRADE	4	58.6	.050	1	.000	.02	92.0	82.7	87.4	7.9	146	93	110	123	143	161	207	256	313	336	391	.8 1.3
17	THIRD GRADE	6	53.8	.007	1	.001	.02	92.2	87.7	87.7	8.4	146	93	113	131	158	185	227	264	315	337	381	.9 1.3

TABLE 8. - Cumulative percents of samples of all grades by research octane numbers by districts, motor gasoline survey, summer 1973

TABLE 9. - Cumulative percents of samples of all grades by motor octane numbers by districts, motor-gasoline survey, summer 1973

TABLE 10. - Locations and numbers of samples, motor gasoline survey, summer 1973

<u>State</u>	<u>Location</u>	<u>Samples</u>	<u>State</u>	<u>Location</u>	<u>Samples</u>			
<u>District 1 (Northeast)</u>								
Maine	Portland	42	Kansas	Coffeyville	6			
Massachusetts	Boston area	88		McPherson	5			
	2 locations	130		Wichita	67			
			Missouri	Springfield	18			
<u>District 2 (Mid-Atlantic Coast)</u>								
Maryland	Baltimore	94	Oklahoma	Bartlesville	6			
New Jersey and New York	New York City area	144		Oklahoma City	2			
New York	Albany	12		Tulsa	95			
Pennsylvania	Harrisburg	27	Texas	Dallas-Fort Worth	94			
Pennsylvania and New Jersey	Philadelphia area	139		8 locations	293			
Virginia	Richmond	90	<u>District 12 (Southern Texas)</u>					
	6 locations	506	Texas	Houston	161			
<u>District 3 (Southeast)</u>								
Alabama	Birmingham	81		Odessa	14			
	Mobile	20		San Antonio	43			
Florida	Jacksonville	2		3 locations	218			
	Miami area	142	<u>District 13 (South Mountain States)</u>					
	Tampa	15	Arizona	Phoenix	83			
Georgia	Atlanta	126		Tucson	14			
North Carolina	Wilmington	30	California	Bakersfield	14			
South Carolina	Charleston	4		Colorado	72			
Tennessee	Chattanooga	36		Denver	23			
	9 locations	456	Nevada	Las Vegas	24			
<u>District 4 (Appalachian)</u>								
New York	Buffalo	97		Reno	24			
Ohio	Cincinnati	107	New Mexico	Albuquerque	101			
	Cleveland	115		Amarillo	90			
Pennsylvania	Columbus	14		El Paso	24			
	Bradford	2	Texas	Lubbock	24			
	Pittsburgh	89		Salt Lake City	59			
West Virginia	Charleston	10		11 locations	528			
	7 locations	434	<u>District 14 (North Mountain States)</u>					
<u>District 5 (Michigan)</u>								
Michigan	Central Michigan	68	Utah	Boise	106			
	Detroit	201		Billings	48			
	Lansing	2		Great Falls	6			
	Northern Peninsula	35		Pasco	38			
	4 locations	306	Washington	Spokane	89			
<u>District 6 (North Illinois)</u>								
Illinois and Indiana	Chicago area	146		5 locations	287			
Iowa	Davenport	2	<u>District 15 (Pacific Northwest)</u>					
	2 locations	148	Oregon	Portland	14			
			Washington	Seattle	123			
				2 locations	137			
<u>District 7 (Central Mississippi)</u>								
Indiana	Indianapolis	98	<u>District 16 (Northern California)</u>					
Kentucky	Louisville	79	California	Portland	14			
Missouri and Illinois	St. Louis area	82		Seattle	123			
	3 locations	259		2 locations	137			
<u>District 8 (Lower Mississippi)</u>								
Arkansas	El Dorado	5	<u>District 17 (Southern California and Hawaii)</u>					
	Little Rock	75	California	Los Angeles area	193			
Louisiana	Baton Rouge	34		San Diego	15			
	Lake Charles	2	Hawaii	Honolulu	20			
	New Orleans	83		3 locations	228			
Mississippi	Jackson	15						
Tennessee	Memphis	98	Total	81 locations	4,717			
	Nashville	1	District					
	8 locations	313	Locations					
			Samples					
<u>District 9 (North Plains)</u>			Percent					
Minnesota	Minneapolis-St. Paul	88	1	130	2.8			
North Dakota	Fargo	18	2	506	10.7			
	2 locations	106	3	456	9.7			
			4	434	9.2			
			5	306	6.5			
			6	148	3.1			
			7	259	5.5			
			8	313	6.6			
			9	106	2.3			
			10	196	4.2			
			11	293	6.2			
			12	218	4.6			
<u>District 10 (Central Plains)</u>								
Iowa	Des Moines	51	13	528	11.2			
Kansas	Phillipsburg	6	14	287	6.1			
Kansas and Missouri	Kansas City area	89	15	137	2.9			
Nebraska	Omaha	40	16	172	3.6			
	Scottsbluff	10	17	228	4.8			
	5 locations	196	Total	81	4,717			
					100.0			

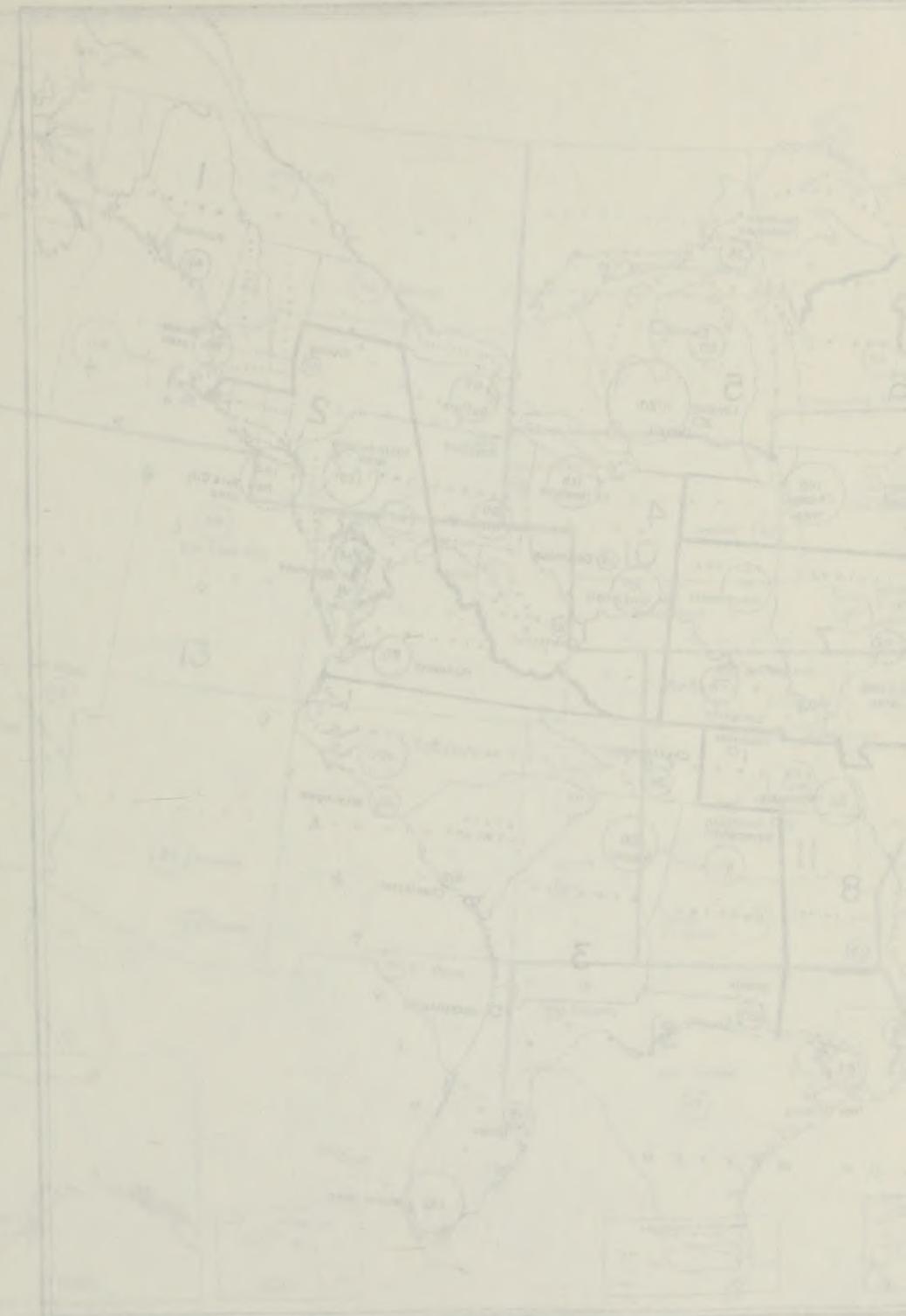


FIGURE 5.—Map showing detailed area around Nevada-salinity junction
near San Joaquin Trough, Calif.

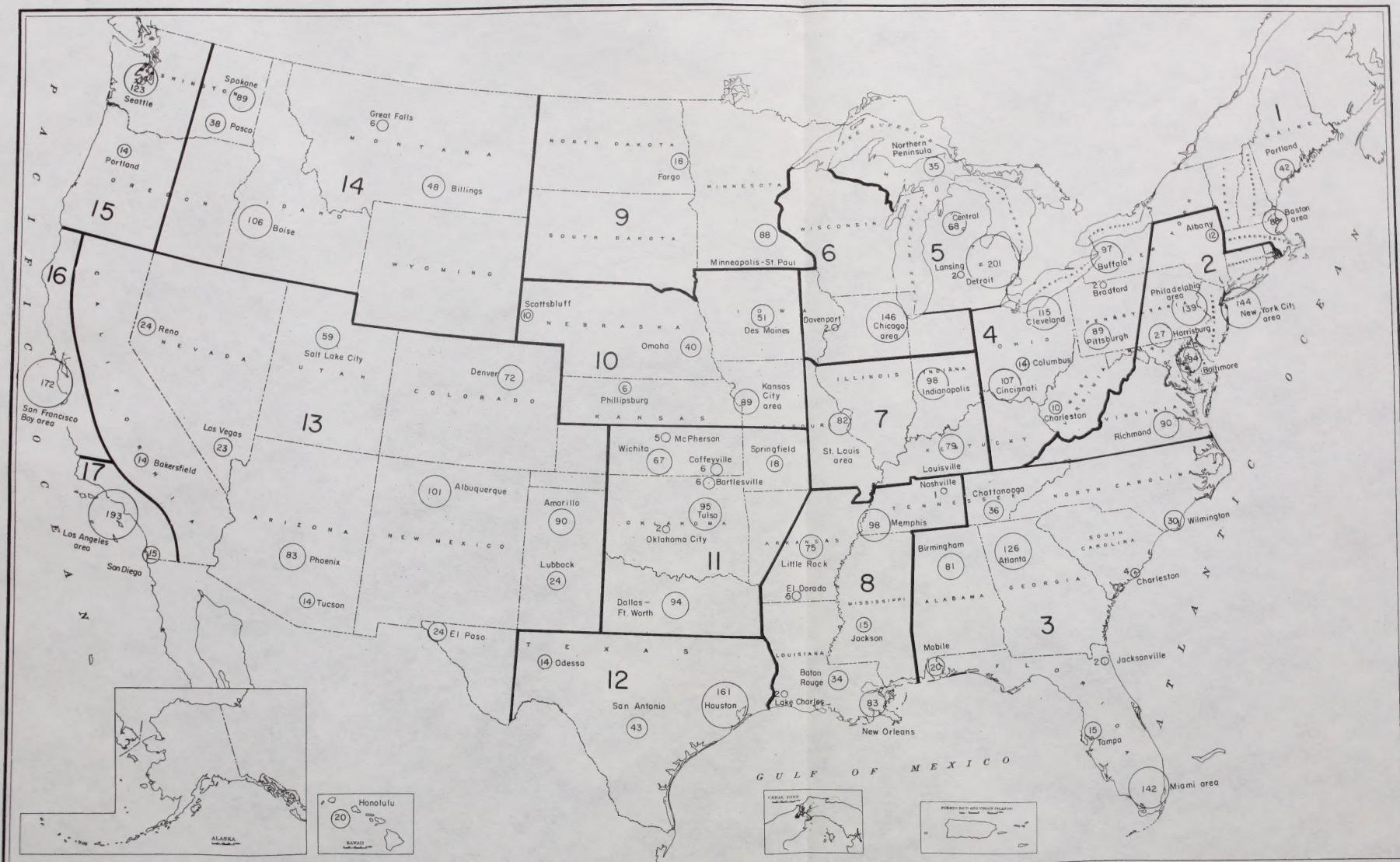


FIGURE 5.—Map Showing Locations and Numbers of Samples for the National Motor Gasoline Survey, Summer 1973

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